Exhibit 22

1	UNITED STATES DISTRICT COURT
2	DISTRICT OF NEW JERSEY
3	
4	x
5	IN RE JOHNSON & JOHNSON) MDL No.
6	TALCUM POWDER PRODUCTS) 16-2738 (FLW)(LHG)
7	MARKETING SALES PRACTICES,)
8	AND PRODUCTS LIABILITY)
9	LITIGATION)
10)
11	THIS DOCUMENT RELATES TO)
12	ALL CASES)
13	x
14	
15	VIDEOTAPED DEPOSITION OF
16	ANN G. WYLIE, Ph.D.
17	WASHINGTON, D.C.
18	WEDNESDAY, MARCH 13, 2019
19	9:19 A.M.
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25	Reported by: Leslie A. Todd

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Deposition of ANN G. WYLIE, Ph.D., held at the
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        Pursuant to notice, before Leslie Anne Todd,
    Court Reporter and Notary Public in and for the
15
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    District of Columbia, who officiated in
17
    administering the oath to the witness.
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1 PROCEEDINGS 2 3 MR. FROST: I just want to note for 4 the record that plaintiffs' counsel have brought 5 David Eagleman to this deposition today. 6 Dr. Eagleman is not an attorney for any of the 7 parties here; therefore, he does not have a right 8 under Section (1)(b)(3) of CMO-11 to attend. 9 When we learned about Dr. Eagleman 10 coming last night, and we -- "we" being the Johnson & Johnson defendants -- objected to his 11 12 presence at this deposition as no application has 13 been made per the terms of the Case Management 14 Order. 15 And that said, without waiving our 16 rights to object in the future, we're going to 17 allow him to stay for now. If he becomes 18 disruptive in any way or if he in any way affects 19 the proceedings, we will seek to enforce CMO-11, 20 and we will seek to have him, you know, no longer 21 admitted to the deposition. 22 Finally, I have asked plaintiffs' counsel to forward a copy of the confidentiality 23 24 order that Dr. Eagleman -- that Dr. Eagleman 25 previously signed. If we can't find it, we'll

- 1 have him execute another one, but that is
- 2 certainly one of the terms by which we will
- 3 require that he stays here.
- 4 MR. PLACITELLA: So I was there when
- 5 Dr. Eagleman signed the first time with Mr. Bicks
- 6 at the Hopkins deposition. Hopefully -- I know
- 7 that Dr. Eagleman has been asked to leave parties
- 8 that are a lot more fun than this one. So,
- 9 hopefully, we will never get to that.
- 10 MR. FROST: I'm not too worried. I
- mean, based on the representation of counsel, I'm
- 12 sure there's one signed. If not, we can always
- execute a new one today if we need to.
- 14 That said, we can begin.
- THE VIDEOGRAPHER: All right. Everybody
- 16 ready?
- MR. LOCKE: Actually, one more thing.
- 18 Tom Locke for the Personal Care Products Council.
- 19 We did not get notice of Dr. Eagleman's
- 20 participation. We join in Johnson & Johnson's
- objection, but more importantly, we would just
- like to get notice of what's happening with these
- depositions before the deposition.
- That's it.
- THE VIDEOGRAPHER: We are now on the

- 1 record. My name is Daniel Holmstock. I am the
- ² videographer for Golkow Litigation Services.
- 3 Today's date is March 13th, 2019, and the time on
- 4 the video screen is 9:19 a.m.
- 5 This video deposition is being held at
- 6 Skadden Arps, 1440 New York Avenue, Northwest, in
- Washington, D.C., in the matter of In Re: Johnson
- 8 & Johnson Talcum Powder Products Marketing, Sales
- 9 Practices and Products Liability Litigation, MDL
- 10 No. 2738, pending before the United States
- 11 District Court for the Eastern District of New
- 12 Jersey.
- The deponent today is Dr. Ann Wylie.
- 14 Counsel for appearances will be noted on
- 15 the stenographic record.
- The court reporter is Leslie Todd, who
- will now administer the oath to the witness.
- ANN WYLIE, Ph.D.,
- and having been first duly sworn,
- was examined and testified as follows:
- 21 DIRECT EXAMINATION
- 22 BY MR. PLACITELLA:
- Q Good morning, Dr. Wylie. I'm Chris
- 24 Placitella. How are you?
- 25 A I'm fine. Thank you.

- 1 Q My son told me to be nice to you and
- told me to wear the Terps scarf, because he spent
- 3 some of his best years there, but I thought that
- 4 might be a little over the top.
- 5 So today I plan on covering four areas:
- 6 Your background, your area of expertise, the
- 7 methodology that you used in coming to your
- 8 opinions in this case, and the information and
- 9 data that form the basis of your opinions.
- 10 Got that?
- 11 A I do.
- 12 Q Okay. We're on the same page?
- 13 A That will be fine.
- 14 Q Okay. First, I want to start with your
- affiliation with Johnson & Johnson. When is the
- 16 first work you ever did with Johnson & Johnson on
- issues related to talc?
- 18 A This involve -- this litigation. The
- 19 first, this litigation.
- Q When you say "this litigation," what do
- 21 you mean by that?
- 22 A I was retained to review the documents
- 23 and provide a report. That's the first time I've
- worked for Johnson & Johnson.
- Q And when were you retained?

- 1 A Let's see. I -- I think Mr. Frost came
- 2 to see me sometime in November of 2018, and I
- 3 think I agreed to do it at the end of November,
- 4 early December 2018.
- 5 O Okay. So prior to being -- that's when
- 6 you were retained by Johnson & Johnson?
- 7 A Yes.
- 8 Q Okay. And what were the terms of your
- 9 retainer?
- 10 A I'm sorry. Could you be more specific,
- 11 the terms?
- 12 O Sure. Yeah. What were the conditions
- of your -- were there any conditions of -- of your
- 14 being retained? Did you have any conditions?
- 15 A Well, the scope of work was outlined,
- and I agreed to a particular scope of work.
- O And what was that?
- 18 A That I would review the literature on
- the deposits that had been used by Johnson &
- Johnson, Italy and Vermont, and that I would
- 21 review the reports that were provided by
- 22 Drs. Longo and Rigler.
- Q Okay. Now, is that the first time you
- ever actually worked with anyone at Johnson &
- Johnson on the issues related to talc?

- 1 A Yes.
- Q Now, I'm not talking about being paid by
- Johnson & Johnson. I'm asking specifically, was
- 4 that the first interaction you had with anyone at
- Johnson & Johnson related to talc?
- 6 A Yes.
- Okay. And November 2018 was the first
- 8 consult you had with Johnson & Johnson for
- 9 litigation purposes --
- 10 A That would be --
- 11 Q -- correct?
- 12 A Yes.
- 13 Q Did Johnson & Johnson ever pay -- pay
- 14 for you to attend any meetings with any government
- 15 agencies?
- 16 A No.
- Q Did they ever fund your expenses to
- 18 attend any meetings with government agencies?
- 19 A No.
- 20 Q You attended an FDA workshop in November
- 21 2018?
- 22 A That's correct.
- Q Okay. And did you have any interaction
- with Johnson & Johnson related to that workshop?
- 25 A No.

- 1 Q So you had no contact with Johnson &
- Johnson at all related to that workshop.
- 3 A No.
- 4 Q Do you know who William Ashton is?
- 5 A No.
- 6 Q Do you have any -- did you ever work
- 7 with William Ashton?
- 8 A No.
- 9 Q Did you ever do any work for the -- the
- 10 Cosmetics Trade Association?
- 11 A No.
- 12 Q Okay. I understand that you did do work
- with respect to ASTM, correct?
- 14 A Do work with respect -- I'm a member of
- 15 D22.
- 16 Q Right. And how long have you been a
- member?
- 18 A About three years.
- 19 Q Three years?
- A Mm-hmm.
- Q And D22 meaning what?
- 22 A That's the -- a committee that deals
- 23 with issues around asbestos.
- Q Okay. Did you ever do any work with
- 25 ASTM related to talc other than on just asbestos?

- 1 A No.
- 2 Q Did you ever work on any committees
- dealing with talc or asbestos with respect for
- 4 the AS -- with respect to the ASTM?
- 5 A Well, within the last three years I'm on
- 6 this committee, and there are -- there are
- 7 methods, draft methods that revolve around
- 8 identification of materials in talc, and that's
- 9 the ongoing business of the committee.
- 10 Q Okay. And are there any members of
- 11 Johnson & Johnson on that committee with you?
- 12 A I don't know.
- 13 Q Now, you are -- your degree is in
- 14 geology?
- 15 A Yes.
- Q And you have a Ph.D. in geology?
- 17 A Yes.
- Q Okay. And the year you got your Ph.D.
- 19 is?
- 20 A 1972.
- Q And from where?
- 22 A Columbia University.
- Q Okay. And you're not an epidemiologist,
- 24 correct?
- 25 A No.

- 1 Q Okay. You're not an expert in
- biological activity of substances' effect on the
- 3 human body?
- 4 A No.
- 5 O You're not a toxicologist?
- 6 A No.
- 7 Q Okay. You have no medical degree?
- 8 A No.
- 9 Q Okay. You've never performed any animal
- 10 studies yourself?
- 11 A No.
- 12 Q Okay. You have no pathology experience,
- 13 correct?
- 14 A No training, no.
- Q Okay. When is the last ongoing research
- 16 that you did as a geologist?
- 17 A I have ongoing research now.
- 18 Q In what capacity? Doing what?
- 19 A I'm interested in the characteristics of
- 20 mineral dust that are known to cause mesothelioma
- 21 in particular.
- Q Okay.
- 23 A And why the incidence of mesothelioma
- 24 among exposed populations varies.
- 25 Q Tell me if you agree or disagree with

- 1 this statement. Do you consider yourself, by the
- way, a job -- an earth scientist?
- 3 A That's a general term for a geologist.
- 4 Q Okay. Do you agree with the statement
- 5 that a job of earth scientist is not to decide
- 6 what is toxic, but to assist the health committee
- 7 and regulators -- health community and regulators
- 8 by carefully describing the physical and chemical
- 9 properties of natural materials?
- MR. FROST: Objection to form.
- 11 THE WITNESS: I think I would agree with
- 12 that.
- MR. PLACITELLA: Okay. Now, can we go
- 14 to --
- 15 (Counsel conferring.)
- MR. FROST: So, Chris, I take it this
- 17 screen in front of Dr. Wylie is --
- MR. PLACITELLA: Mm-hmm.
- 19 MR. FROST: -- what's projected up
- there? Can you see the screen, Doctor? Is that
- 21 big enough?
- THE WITNESS: If I get very close.
- MR. FROST: It seems very tiny.
- MR. PLACITELLA: I'll blow things up for
- 25 you.

1 THE WITNESS: Okay. 2 (Wylie Exhibit No. AW-36 was 3 marked for identification.) 4 BY MR. PLACITELLA: 5 What I'm describing to you is -- I have 0 6 it marked AW-36, and I'll have a copy made at the 7 break because I got this late last night. 8 your curriculum vitae signed in January, it looks 9 like 1989. Is that your signature? 10 It is. Α 11 0 Okay. And I just want to go through with you your curriculum vitae. 12 13 In your curriculum vitae, it -- you have 14 listed a publication that you did for the American 15 Society of Testing and Materials. 16 Is that fair? 17 Α Yes. 18 Okay. 0 19 Α They published it, yes. 20 All right. So you did have some 0 21 affiliation with the ASTM before three years ago. 22 That -- as I recollect, I was invited by Α 23 whoever was organizing this particular volume to

contribute, but I wasn't a member of ASTM at that

time.

24

25

- 1 Q But you did work with them.
- 2 A I submitted a paper to this publication.
- Q Okay.
- 4 A So I -- I wouldn't have interpreted your
- 5 question working with them to assume that a
- 6 publisher was working with them.
- 7 Q Well, you attended their conference?
- 8 A I -- I'm sorry, what conference?
- 9 Q Do you recall ever attending any
- 10 conferences for the ASTM more than --
- 11 A I remember --
- 12 Q -- three years ago?
- 13 A I remember presenting this paper.
- 14 Q Okay.
- 15 A So, perhaps, but I didn't recollect it.
- Q Okay. And in -- in your section
- there is a -- or in your resume there's a section
- 18 on consulting.
- 19 A Yes.
- Q Do you see that?
- 21 A Yes, uh-huh.
- Q And it says that you consulted Avon
- 23 Products in 1973.
- 24 A That's correct.
- Q And what was your consultation with Avon

- 1 Products in 1973?
- 2 A There was a new method being developed
- for identification of fiber in talc, and they
- 4 asked me to review the methodology.
- 5 Q And Avon Products was a company that
- 6 sold talc-containing products?
- 7 A I -- I -- I think so.
- 8 Q Okay. You also have here consulting
- 9 with R.T. Vanderbilt Company, and the first year
- you have listed is 1977, and the last year you
- 11 have listed here is 1987. Do you see that?
- 12 A Yes.
- 13 Q Have you consulted for R.T. Vanderbilt
- 14 after 1987?
- 15 A I have done some mineral analysis for
- 16 them post this time.
- Q Okay.
- 18 A And I gave a deposition for them, I
- 19 think post this time.
- Q Okay. And in working for R.T.
- Vanderbilt, did you work on them -- work for them
- in the context of litigation related to the talc
- that they sold?
- 24 A I gave a deposition in a -- once for
- 25 that purpose.

- 1 Q Okay. And did you issue reports for
- 2 R.T. Vanderbilt that were litigation related?
- 3 A I did mineral analysis for them.
- I don't believe that I knew whether they
- 5 were litigation related or not. But one of them
- 6 when they -- when the deposition was taken,
- 7 certainly those reports were part of that
- 8 litigation at that time.
- 9 Q Okay. And you have listed here, and I
- 10 have highlighted it, "Desert Mineral Products,
- 11 1979." That's a company that sold talc, correct?
- 12 A Yes.
- 13 O And what work did you do for Desert
- 14 Mineral Products in 1979?
- 15 A I analyzed some samples of talc.
- Q And did that in any way relate to
- 17 litigation?
- 18 A It related to an administrative hearing
- 19 in California.
- Q Okay. Next you have listed United
- 21 States Mineral Products, 1981. Do you see that?
- 22 A Yes.
- Q That was a company that sold asbestos-
- 24 containing fireproofing?
- 25 A I really don't remem- -- I don't know

- 1 that.
- Q Do you remember they were from Stanhope,
- 3 New Jersey?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: No.
- 6 BY MR. PLACITELLA:
- 7 Q Do you ever remember dealing with a man
- 8 name -- named Jim Verhalen?
- 9 A No.
- 10 Q Okay. Do you remember what you did for
- 11 United States Mineral Products in 1981?
- 12 A I -- I must have analyzed a sample.
- 0 What kind of samples?
- 14 A I have absolutely no recollection.
- 15 O You have listed here Celotex
- 16 Corporation, 1986 and 1987. Do you see that?
- 17 A Yes.
- Q Celotex Corporation was a company that
- 19 manufactured asbestos-containing products,
- 20 correct?
- MR. FROST: Objection to form.
- THE WITNESS: I don't know that.
- 23 BY MR. PLACITELLA:
- Q What work did you do for Celotex in 1986
- 25 and 1987?

- 1 A I assume I analyzed a sample.
- Q Okay. Well, when you put this resume
- 3 together, what was the foundation for what you
- 4 were listing?
- 5 MR. FROST: Objection to form.
- 6 BY MR. PLACITELLA:
- 7 Q What did -- what records did you look
- 8 at?
- 9 MR. FROST: Objection to form.
- 10 THE WITNESS: I -- I don't remember.
- 11 BY MR. PLACITELLA:
- 12 Q Okay.
- 13 A Whatever -- I don't remember.
- 14 Q Do you know whether you did -- the work
- that you did for Celotex Corporation was related
- 16 to litigation?
- 17 A I don't think so. I don't remember. My
- work for any of these was primarily mineral
- 19 analysis. It was not litigation.
- Q Okay. And it says -- the next one you
- list is GAF Corporation, 1986. Do you see that?
- 22 A Yes.
- Q Do you understand that they manufactured
- 24 asbestos-containing products?
- MR. FROST: Objection to form.

- 1 THE WITNESS: I don't believe I know
- 2 that.
- 3 BY MR. PLACITELLA:
- 4 Q Did you know that they owned an asbestos
- 5 mine?
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: No.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. Did you know that they owned an
- 10 asbestos mine in the state of Vermont?
- MR. FROST: Objection to form.
- 12 THE WITNESS: I did not.
- 13 BY MR. PLACITELLA:
- 14 Q Okay. Do you know what work you did for
- 15 GAF Corporation?
- 16 A As I indicated before, the only work I
- 17 did was -- in general, would be to analyze a
- sample for asbestos.
- 19 Q So they would give a sample of their
- 20 product to you and ask you to analyze it?
- 21 A I have no idea what they gave me,
- 22 frankly.
- Q Next you have listed Keene Corporation,
- 1986 and 1987. Do you know that they were a
- manufacturer of asbestos-containing products?

- 1 A No.
- MR. FROST: Objection to form.
- THE WITNESS: No.
- 4 BY MR. PLACITELLA:
- Okay. And do you know what work you did
- 6 for Keene Corporation?
- 7 A The only work I did for any of these,
- 8 it's been a long time, is an analysis of samples
- 9 for the presence of asbestos.
- 10 Q The next one I have highlighted here is
- 11 Southern Talc. That was a manufacturer and seller
- of talc, correct?
- MR. FROST: Objection to form.
- 14 THE WITNESS: Yes.
- 15 BY MR. PLACITELLA:
- Okay. And what did you do for them?
- 17 A I did analysis of samples that they sent
- 18 me for the presence of asbestos.
- 19 Q Okay. And did you do an analysis --
- when you did your -- when you said you did
- 21 analysis for Celotex, GAF and Keene, was that all
- for the presence of asbestos?
- MR. FROST: Objection to form.
- THE WITNESS: To the best of my
- 25 recollection.

- 1 BY MR. PLACITELLA:
- Q Okay. And when people hire you, do you
- 3 ever ask them what the nature of their business
- 4 is?
- 5 A No.
- 6 Q Okay. I noticed in your current CV that
- 7 U.S. Mineral, Celotex, GAF and Keene are no longer
- 8 on your CV; is that correct?
- 9 A That's correct.
- 10 Q Why is that?
- 11 A The academic -- the form of the
- university's CVs don't ask for consulting, and
- 13 this is my university CV.
- 14 Q Okay. Did R.T. Vanderbilt play a role
- in your securing tenure at the University of
- 16 Maryland?
- MR. FROST: Objection.
- THE WITNESS: No.
- 19 BY MR. PLACITELLA:
- 20 O Did R.T. Vanderbilt write a letter in
- 21 support of your tenure at the University of
- 22 Maryland?
- 23 A The promotion and tenure process at the
- University of Maryland requests letters
- anonymously. They don't tell me. They don't tell

- 1 the candidate. So they -- they request letters,
- 2 and the letters come in, and the candidate does
- 3 not necessarily know who was invited to provide
- 4 letters.
- 5 Q But as you sit here today, do you know
- 6 that R.T. Vanderbilt actually wrote to the
- 7 University of Maryland in support of your tenure?
- MR. FROST: Objection to form.
- 9 THE WITNESS: Someone told me that
- 10 sometime ago, but I actually only learned of it
- 11 recently.
- 12 BY MR. PLACITELLA:
- 13 O And how did you learn of it?
- 14 A Someone -- someone told me who had been
- in a case somewhere, and I can't remember exactly
- 16 who told me. I -- or why it was even a subject of
- discussion since I wasn't involved, and I think
- that was the reason why they told this subject had
- 19 come up.
- Q Who was the chairman -- your chairman at
- the time when you secured tenure at the University
- of Maryland?
- 23 A Galt Siegrist.
- Q And are you aware that your chairman
- 25 actually wrote to R.T. Vanderbilt and advised them

- 1 that their recommendation, quote, will constitute
- the most important document to be used in the
- 3 entire promotion and tenure process?
- 4 MR. FROST: Objection to form.
- 5 BY MR. PLACITELLA:
- 6 Q Are you aware of that?
- 7 A No.
- 8 O You never heard that before?
- 9 A No.
- 10 O Am I correct that R.T. Vanderbilt has
- 11 funded graduate student research for your
- department?
- 13 A Yes.
- 14 Q And they've funded that in excess of a
- 15 half a million dollars?
- 16 A No.
- 17 Q Do you ever recall testifying in the
- 18 Westin case?
- 19 A That -- the name doesn't ring any bells,
- 20 so...
- you ever learned that R.T. Vanderbilt funded your
- student research for over \$500,000? You never
- 24 heard that before?
- 25 A That's simply not the case.

- 1 Q Okay. Did you ever appear in a film for
- 2 R.T. Vanderbilt that was used for Vanderbilt's
- 3 lobbying purposes?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: I did appear in a film for
- 6 them.
- 7 BY MR. PLACITELLA:
- Q And that was used for lobbying by them?
- 9 A I don't know.
- 10 Q And have you ever received research
- 11 grants from Southern Talc Company?
- 12 A Yes.
- 13 O Okay. And --
- 14 A One.
- 15 Q In excess of \$17,000?
- 16 A That would be correct.
- 17 Q Have you ever seen -- received research
- 18 grants from Ford Motor -- General Motor and
- 19 Chrysler?
- 20 A Yes.
- Q Okay. And you know that they made
- 22 asbestos-containing products, correct?
- MR. FROST: Objection to form.
- THE WITNESS: I didn't know they made
- 25 them.

- 1 BY MR. PLACITELLA:
- Q Okay. You didn't know they made
- 3 asbestos-containing brakes?
- 4 A I thought they used them. I didn't know
- 5 they made them.
- 6 Q Okay. And did the research grants that
- you received from the automotive industry total
- 8 somewhere in excess of a half a million dollars?
- 9 A It did, yes.
- 10 Q Now, you have been, I know, asked and
- 11 you have testified before Congress on more than
- one occasion, correct?
- 13 A Once only, I think.
- 14 Q And you testified before a Senate
- 15 Committee?
- 16 A That would be correct, yes.
- Okay. During your testimony before the
- 18 Senate Committee, did -- did members of the Senate
- raise concerns with the statements you were
- 20 providing to them concerning your ties to
- 21 industry?
- MR. FROST: Objection to form.
- THE WITNESS: That one senator did ask a
- question of me about my ties to industry.
- 25 BY MR. PLACITELLA:

- 1 Q Right. And -- and you denied that you
- 2 had any connection or any ties or did any work for
- 3 any asbestos-containing product manufacturer,
- 4 correct?
- 5 A No.
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: The -- the question -- let
- 8 me go back.
- The hearing was about a banned asbestos
- 10 bill, and I testified on that bill. I didn't
- 11 testify against the bill. In fact, I would be in
- 12 favor of such a bill.
- I testified to ask the Senate to expand
- the definitions of "asbestos," include more
- minerals than are currently in the regulatory
- 16 policy and identification, because I thought that
- there were other forms of amphibole that form
- 18 asbestos and should have been included in the law.
- 19 So that was the one point that I made.
- 20 And the other point was that we needed
- 21 definitions that would enable us to discriminate
- 22 asbestos from non-asbestos forms of the same
- mineral, and I urged them to do so.
- MR. PLACITELLA: Respectfully, ma'am, I
- move to strike your testimony.

- 1 BY MR. PLACITELLA:
- Q What was my question?
- 3 A I'm not exactly sure.
- 4 Q Okay. Well, let me show you your
- 5 testimony.
- 6 A All right.
- 7 Q Okay? You were asked: "Have you worked
- 8 for businesses that make money selling products
- 9 that may have caused disease associated with
- 10 asbestos?"
- 11 Do you see that?
- 12 A Yes.
- MR. FROST: I'm going to object to the
- 14 form on this one. This doesn't look like an
- official transcript from the Senate hearing.
- MR. PLACITELLA: Well, if you have the
- official one, I'm happy to put it up. Or if you
- 18 think somehow it's misstatement -- a misstatement,
- 19 I'm happy to correct it.
- MR. FROST: I'm just preserving for the
- 21 record.
- MR. PLACITELLA: That's fine.
- MR. FROST: I have no ability at this
- 24 time --
- MR. PLACITELLA: Okay.

- 1 MR. FROST: -- to verify that, but this
- 2 certainty does not look like a transcript that
- 3 would have been generated by the United States
- 4 government.
- 5 MR. PLACITELLA: Okay.
- 6 BY MR. PLACITELLA:
- 7 Q And your answer was: "No."
- And the senator said: "Well, I have a
- 9 number of receipts that show you've worked as a
- 10 paid defense witnesses -- witness for businesses
- in asbestos litigation, and I must consent that
- 12 these documents be put into the record, minding
- you answer my question honestly."
- Do you remember what year this testimony
- was, by the way?
- 16 A Sometime around 2003 or something like
- 17 that.
- 18 Q And it says: "I did. I've never worked
- 19 for an asbestos manufacturer."
- 20 And you said -- and then the question
- 21 was: "I didn't say that."
- 22 And you said: "Or an asbestos
- 23 fabricator."
- 24 And the question was: "I didn't ask you
- 25 that. I said, Have you ever worked as a paid

- defense witness for a business in asbestos
- 2 litigation?"
- Your answer is: "I have testified on --
- 4 on or about three occasions for, uh, on the nature
- of materials involved."
- 6 And you wrote -- and the question was:
- 7 "Who paid you?"
- 8 Answer: "R.T. Vanderbilt, three times
- ⁹ or thereabouts.
- 10 Senator: "So your original answer was
- 11 incorrect?
- 12 You said: "I -- I misunderstood."
- And the senator said: "Okay. Well, let
- me be clear, I think it's very important that we
- 15 determine before this committee" --
- 16 And you said: "I agree."
- Now, what I want to do is focus on
- 18 your -- your testimony a little further up where
- 19 it says: "I -- I did. I never worked for an
- 20 asbestos manufacturer or an asbestos fabricator."
- 21 Do you see that?
- 22 A Yes.
- Q Okay. When you gave that testimony, you
- had already worked for United States Mineral
- 25 Corporation, Celotex Corporation, GAF Corporation,

- 1 and Keene Corporation, correct?
- 2 A Yes.
- Q And when you gave that testimony, you
- 4 had all -- you had actually put that on your CV,
- 5 correct?
- 6 A Yes.
- 7 Q Okay. Now, let me ask you, focusing on
- 9 your methodology in this case, tell -- tell me
- 9 what methodology you used or you employed in
- 10 arriving at your opinions in this case.
- MR. PLACITELLA: Can you get me the
- 12 ELMO?
- 13 THE VIDEOGRAPHER: Sure.
- 14 THE WITNESS: In -- in this --
- 15 BY MR. PLACITELLA:
- 16 Q Yes, ma'am, in this case.
- 17 A Okay. All right.
- 18 Q And I -- I'm going to write it down so
- 19 we have it. Okay?
- 20 A What methodologies? I reviewed the
- 21 literature, I did a literature search.
- Q Okay. Hold on. Okay. Reviewed
- 23 literature.
- 24 A Mm-hmm. And I reviewed the reports by
- 25 MAS, Longo's and Rigler's reports.

- Q Anything else?

 A I don't think so, no.

 Q Okay. So your methodology --
 - 4 A I also reviewed two reports that were
 - 5 not published literature by Dr. Pooley and
 - 6 associates on the -- his reports on the mines in
 - 7 Vermont and in Italy. So that --
 - 8 Q Okay. So, one, you reviewed literature.
 - 9 Two, you reviewed reports of Longo?
- 10 A Yes.
- 11 Q And, three, you reviewed unpublished
- 12 reports of Dr. Pooley. Correct?
- 13 A That's correct.
- Q Okay. And where did you get those?
- 15 A From Mr. Frost.
- 16 Q So they came from Mr. Frost?
- 17 A Yes.
- 18 Q Okay. Anything else?
- 19 A No.
- Q So I'm just going to write here,
- "Nothing else."
- MR. FROST: Objection to form.
- 23 BY MR. PLACITELLA:
- Q Okay. Now, did you do any testing
- related to Johnson & Johnson products?

- 1 A No.
- Q Okay. Did you request to do any testing
- 3 related to Johnson & Johnson products?
- 4 A No.
- 5 O Okay. Did you review any internal
- 6 testing done by Johnson & Johnson of its
- 7 talc-related products?
- 8 A No.
- 9 Q Did you ask to review any internal
- 10 testing done by Johnson & Johnson of its talc-
- 11 related products? And what I mean testing, I mean
- 12 for asbestos.
- 13 A No.
- 14 Q Okay. You said that you reviewed the
- literature. How did you do that? The published
- 16 literature.
- 17 A Yes. I had literature, which I looked
- 18 at. I did a search on GeoRef, which is a database
- 19 for geological information.
- Q Okay. I noticed from looking at your
- 21 report that you also searched the internet for
- 22 pictures.
- 23 A Yes.
- Q All right. So you downloaded some
- 25 photos from the internet.

- 1 A From the United States Geological
- 2 Survey, yes.
- Q Okay. Am I correct that you didn't
- 4 review any internal testing of sources of
- Johnson & Johnson talc other than the two Pooley
- 6 reports given to you by Mr. Frost?
- 7 A That's --
- 8 MR. FROST: Objection to form.
- 9 THE WITNESS: That is correct.
- 10 BY MR. PLACITELLA:
- 11 Q Did you ask Mr. Frost whether he had
- 12 supplied you with all of the relevant internal
- testing of the Johnson & Johnson sourced mines?
- MR. FROST: Objection to form.
- THE WITNESS: I asked if there were any
- descriptions of the ore deposits themselves, but I
- did not ask for reports of product testing.
- 18 BY MR. PLACITELLA:
- 19 Q What about of the mine reports for
- asbestos in the mines, did you ask for that?
- 21 A No.
- Q Did you speak to any of the scientists
- 23 at Johnson & Johnson?
- 24 A No.
- Q Did you make an effort to determine

- 1 whether the opinions that you were giving in this
- 2 case agree or disagree with Johnson & Johnson's
- 3 own scientists?
- 4 A No.
- 5 O Did you make an effort to determine
- 6 whether the opinions you were giving in this case
- 7 agree or disagree with other experts hired by
- 8 Johnson & Johnson?
- 9 A No.
- 10 Q Okay. Now, I looked at your report,
- 11 which -- do you have a copy with you?
- 12 A I do.
- 13 (Wylie Exhibit No. AW-44 was
- marked for identification.)
- 15 BY MR. PLACITELLA:
- Okay. When I looked at your report --
- which I have marked here as AW-44 -- do you see
- 18 that?
- 19 A Yes.
- Q Okay. And when I look at the first 20
- 21 pages of your report, I could only find four
- references to studies in your report that were
- done by somebody other than yourself. Is that
- 24 accurate?
- MR. FROST: Objection to form.

- 1 BY MR. PLACITELLA:
- 2 Q So let me -- let's walk -- walk through
- 3 it.
- 4 A All right.
- 5 O You see on page 3, there was -- you had
- 6 a reference to a Kerrigan study from '17?
- 7 A Yes.
- 8 Q So let's just walk through it. So
- 9 page 1, nothing. No reference to any studies.
- 10 MR. FROST: Objection. That's the
- 11 Summary of Opinions.
- 12 BY MR. PLACITELLA:
- 13 Q Just making sure we're doing the right
- 14 counting. Nothing on page 1?
- 15 A No.
- 16 Q Nothing on page 2?
- MR. FROST: Same objection.
- 18 BY MR. PLACITELLA:
- 19 Q Correct?
- I'm just focusing on studies other than
- 21 citing to yourself.
- 22 A Yes, mm-hmm.
- Q Okay. On page 3, I found one, but
- 24 actually you were part of that study as well. You
- just cited it as Kerrigan, et al., on the bottom,

```
1
    correct?
 2.
           Α
                Yes.
 3
           0
                All right. So that would be -- I'll
 4
    take that one out.
 5
                So none on page 4.
 6
           Α
                There is a reference on page 4, but it
 7
    is to my work with that --
 8
                Right. I'm just looking for research
           0
    that you did that -- where you found studies to
9
10
    support your conclusions other than citing
11
    yourself.
                Okay?
12
                So nothing on page 4?
13
           Α
                Correct.
14
                Okay. Nothing on page 5?
           0
15
                That's correct.
           Α
16
                Nothing on page 6?
           Q
17
                That's correct.
           Α
18
                You do cite a study on page 7 of 2007
           O
19
    concerning rocks around Mount Etna?
20
           Α
                Correct.
21
                Okay. Well, that has -- that doesn't
22
    relate to any of the mines at issue in this case,
    though, correct?
23
24
           Α
                That's correct.
25
           Q
                Okay. Nothing on page 8?
```

1 I cite EOS. That's a publication. Α 2. 0 Okay. 3 Α And on page 7, I cite the U.S. 4 Geological Survey. 5 Okay. Let's make sure we get that 0 6 right. 7 That's here (indicating)? 8 Α Yes. 9 Okay. This you cite -- well, let's go Q 10 back to page 7. The citation you have on page 7 11 to the U.S. Geological Survey, that does not 12 relate to any of the mines at issue in this case, 13 correct? 14 Α Correct. 15 Okay. On page 8, you point out that --0 16 you cite EOS. That has to do with mines not 17 involved in this case, correct? 18 Α That's --19 MR. FROST: Objection to form. 20 THE WITNESS: -- correct. 21 BY MR. PLACITELLA: 22 All right. Page 9, anything? Q 23 The Geological Survey is cited. Α 24 That's where you downloaded the photo. 0

Α

Correct.

25

- 1 Q Okay. Does that have anything that's
- directly at issue in this case?
- 3 A That's a complicated question.
- 4 Q Well, let me rephrase it. It was a bad
- 5 question.
- 6 Does this relate directly to any of the
- 7 mines at issue in this case?
- 8 A No.
- 9 Q Okay. Don't see anything on page 10?
- 10 A Yeah, mm-hmm.
- 11 Q On page 11, you cite NIOSH and Weill.
- 12 Are you involved in that Weill paper?
- 13 A What page are we on again, please?
- 14 Q Page 11.
- 15 A I cite -- yes, that's the editor of the
- journal, special issue of the journal in
- 17 Toxicology and Applied Pharmacology, and I am an
- 18 editor, yes.
- 19 Q Okay. So you were a part of that paper.
- 20 A It's not a paper. It's a -- well, it's
- 21 this chart.
- Q Okay.
- 23 A Yes.
- 0 I'll leave it on there.
- You cite NIOSH.

- 1 A Yes.
- Q Okay. None of these citations directly
- relate to mines at issue in this case, correct?
- 4 A That -- I believe that that -- what
- you're asking me, is there anything about these,
- 6 Italian mine or the Vermont mine in these
- ⁷ publications.
- 8 Q Correct.
- 9 A That would be correct.
- 10 Q Okay. You cite on page 13 to an article
- 11 by Crane. Did the Crane article have anything to
- do with the Italian or Vermont mine?
- 13 A No.
- MR. FROST: Objection.
- 15 BY MR. PLACITELLA:
- Okay. Page 14, anything on page 14 have
- anything directly to do with the Italian or
- 18 Vermont mine at issue in this case?
- 19 A Any of the citations?
- Q Yes, ma'am.
- 21 A No.
- Q Okay. I should call you "Doctor."
- 23 I'm -- I apologize.
- 24 A That's all right.
- Q Page 15, you cite to the report of

- 1 Dr. Longo and Rigler, correct?
- 2 A That's correct.
- 3 Q All right. But to no external research
- 4 that you've done to support your opinions in this
- 5 case, correct?
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: That's a complicated
- ⁸ question.
- 9 BY MR. PLACITELLA:
- 10 Q Well, you don't have any citations on
- 11 page 15.
- 12 A That's correct.
- Q Okay.
- 14 A That's correct.
- Okay. Same question with respect to 16.
- 16 A That's correct.
- MR. FROST: I'll object to that, that
- 18 there are citations.
- MR. PLACITELLA: Please object to form,
- 20 and -- and leave it at that.
- MR. FROST: Okay. I'll object to form.
- MR. PLACITELLA: Okay. Thank you.
- 23 BY MR. PLACITELLA:
- Q Page 17, do you have any citations to
- 25 any studies or literature related to the mines at

- 1 issue in this case?
- MR. FROST: Same objection.
- THE WITNESS: No.
- 4 BY MR. PLACITELLA:
- O Okay. Page 18, you mention the Val
- 6 Chisone deposit, correct?
- 7 A Chisone Valley, yes.
- 8 O Right. But there are no citations to
- 9 any literature related to that on this page,
- 10 correct?
- 11 A Correct.
- 12 Q Okay. On page 19, you have a citation
- to a work by Sanford in 1982, correct?
- 14 A That is correct.
- 15 O That does not relate to any of the
- 16 mines that -- that does not involve any of the
- mines at issue in this case, correct?
- 18 A No. Not directly, no.
- 19 Q Okay. Then on page 20, you have the --
- 20 a citation to Dr. Pooley. Correct?
- 21 A Yes.
- 22 Q That was the study that you referred to
- that was given to you by Mr. Frost?
- 24 A That is correct.
- Q Okay. So am I correct that for the

- 1 first 20 pages of your report, you do not have any
- 2 citation that is -- directly relates to the mines
- 3 at issue in this case other than the one report
- 4 given to you by Mr. Frost?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: There are no citations
- 7 that specifically relate to -- that specifically
- 8 mention those deposits.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. Then on page 21, you do have some
- 11 citations that relate to the mines at issue in
- 12 this case, correct?
- 13 A Chidester and Gilson.
- 0 Correct.
- 15 A The Argonaut Mine, is -- is that one of
- 16 the mines?
- 17 Q Yes, ma'am.
- 18 A So the Chidester article does relate
- 19 directly to that.
- Q Okay.
- 21 A Gilson is a little less clear in exactly
- 22 what the -- you know, what he's describing. He
- describes many, many, many occurrences. So I
- don't know whether he directly identifies those
- mines. He does talk about Windsor County.

- Q Okay, I'll give you that one.
- Okay. So let's just focus on these two
- 3 studies. Assuming that the evidence in this case
- 4 is that Johnson & Johnson did not use any Vermont
- 5 talc before the 1960s, none of the references in
- 6 your paper directly relate to Vermont talc used
- 7 before 1960, correct?
- MR. FROST: Objection to form.
- 9 BY MR. PLACITELLA:
- Q Well, let me ask the question
- 11 differently. It was a bad question.
- You do not have any references
- 13 concerning Vermont talc in your report that
- 14 postdate 1960, correct?
- MR. FROST: Objection to form.
- 16 THE WITNESS: The Pooley reports
- postdate that.
- 18 BY MR. PLACITELLA:
- 19 Q I thought the Pooley report that you are
- 20 citing referenced the Italian talc.
- 21 A Oh, there's also a Pooley report that
- describes the deposits in Ludlow -- around Ludlow,
- 23 Vermont.
- Q Okay. I don't see that in your report.
- 25 Where --

- 1 A It's in my reference list.
- Q But in your report, which comprises and
- 3 supports your opinions in this case, you do not
- 4 mention any Pooley report related to the Vermont
- 5 mines, correct?
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: That's incorrect. On
- 8 page 20, the subtitle is "Comments on Windsor
- 9 County Talc Deposits."
- 10 BY MR. PLACITELLA:
- 11 Q Oh, great. Okay.
- 12 A And I reference Pooley, 1972.
- Q Okay, great.
- So the only reference that you have
- concerning the Vermont mines that postdates 1960
- is an unpublished report from Pooley that was
- given to you by counsel for Johnson & Johnson,
- 18 correct?
- 19 A That would be --
- MR. FROST: Objection to form.
- THE WITNESS: That would be correct.
- 22 BY MR. PLACITELLA:
- Q Okay. And -- now, let me just go down
- to your references for the Val Chisone, Italy
- deposits. Do you see that?

- 1 A Yes.
- Q It's on page 21.
- 3 A Yes. Mm-hmm.
- 4 Q Okay. You cite to Lightfoot, et al.,
- 5 1972. Was that a published paper?
- 6 A No. That is the report that Pooley
- 7 was -- participated in, but in the reference list
- 8 Lightfoot is the first author.
- 9 Q Okay. So that's an unpublished report.
- 10 A That is correct.
- 11 Q Okay. And not peer reviewed.
- 12 A No.
- Q Okay. And the other Pooley report that
- 14 you cited to concerning the Windsor mines, that
- was not peer reviewed, correct?
- 16 A No. No.
- Q Okay. So I see further that -- by the
- way, do you know when Johnson & Johnson stopped
- 19 purchasing talc from its -- the Italian source for
- use in the United States?
- 21 A I think you just told me, didn't you?
- O No. Italian source.
- 23 A Oh. No.
- Q Would that be relevant to your opinions?
- 25 A I didn't -- no. I -- perhaps.

- 1 Q Okay. Am I correct that time frame
- 2 matters in terms of when -- the relevance of
- 3 sampling done in a mine?
- 4 MR. FROST: Objection.
- 5 BY MR. PLACITELLA:
- 6 0 It's relevant.
- 7 A It's relevant.
- 8 Q All right. Because you can take a
- 9 sample from one level of a mine, for example,
- being explored in 1927, and that may have
- different results from a level of a mine that was
- the same mine that was sampled in 1967.
- 13 A It -- it would depend on the mine, but
- in general, I think you'd have to assume the
- possibility of variation with time.
- 0 Okay. Thank you.
- 17 Am I correct that your report does not
- 18 cite to a single published study concerning the
- 19 Italian mines that postdates 1975?
- 20 A That would be incorrect.
- Okay. Please show me -- oh, you're
- 22 correct.
- Let me ask the question again. Any
- 24 citation concerning an Italian mine that you have
- in your report postdates 1975 for published

- 1 literature, correct?
- MR. FROST: Objection to form.
- THE WITNESS: There are several articles
- 4 postdate 1975 that deal directly with the Fontaine
- 5 mine.
- 6 BY MR. PLACITELLA:
- 7 Q Yes.
- 8 A Yes.
- 9 Q But all of your citations that support
- 10 your conclusions concerning the Italian mine in
- 11 terms of public -- published literature postdate
- 12 1975, correct?
- MR. FROST: Objection to form.
- 14 THE WITNESS: Yeah, I think that's
- 15 correct.
- 16 BY MR. PLACITELLA:
- Q Okay. Now, you cite -- by the way, do
- 18 you recall you cited to the Chidester article in
- 19 1951?
- 20 A Yes.
- Q Okay. Do you know what test methods
- 22 Dr. Chidester used in 1951?
- A = I do not.
- Q Okay. And were you aware -- or you
- cited also to the Argonaut Mine as an example in

```
1
    your report.
 2.
                MR. FROST: Objection to form.
 3
                THE WITNESS:
                              Yes.
 4
    BY MR. PLACITELLA:
 5
                And -- what page was that?
           0
 6
           Α
                Page 21.
 7
                You say that Pooley -- the Pooley
    article you referenced for -- for Vermont was
 8
 9
    1972, correct?
10
                That -- that's correct.
           Α
11
           0
                Okay. And then you state on page 21
12
          "Pooley's detailed descriptions are
13
    consistent with published descriptions of talc
14
    mines in the Ludlow, Vermont area. The minerals
15
    list in the ore from several mines, including
16
    Argonaut Mine by mindat.org."
17
                Do you see that?
18
           Α
                Yes.
19
                Okay. What is mindat.org?
           Q
20
                It's a mineral database that's -- lists
           Α
21
    information about a mineral, any mineral that you
22
    want, and they -- in this particular case, they
23
    included the Argonaut Mine in the list of
24
    minerals.
```

Okay. But you didn't do any independent

0

25

- 1 research concerning the Argonaut Mine --
- 2 A I did not.
- Q -- other than that.
- 4 And were you aware when you were putting
- 5 your report together that the Argonaut Mine did
- 6 not open until 1974?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: No.
- 9 BY MR. PLACITELLA:
- 10 O Would that have been relevant to the
- 11 consideration of your opinions in this case?
- MR. FROST: Objection.
- THE WITNESS: Well, perhaps, but I knew
- there were mines other than the Argonaut Mine
- 15 providing material. So...
- 16 BY MR. PLACITELLA:
- Q Well, I understand that, but you picked
- 18 Argonaut as an example. Why did you pick
- 19 Argonaut?
- 20 A It's the only thing I could find.
- Q Okay. Well, did Johnson & Johnson ever
- tell you that they had core sampling results for
- the Argonaut Mine?
- MR. FROST: Objection to form.
- THE WITNESS: No.

- 1 BY MR. PLACITELLA:
- Q Would that have been relevant to your
- 3 opinions?
- 4 MR. FROST: Objection.
- 5 THE WITNESS: No.
- 6 BY MR. PLACITELLA:
- 7 O So if Johnson & Johnson had core
- 8 sampling results showing there was asbestos in the
- 9 Argonaut Mine, that would have no relevance to
- 10 your opinions?
- MR. FROST: Objection to form.
- 12 THE WITNESS: It -- no.
- 13 BY MR. PLACITELLA:
- Q Why not?
- 15 A Because I was asked to review the
- 16 literature. I -- I had a very specific
- 17 assignment.
- Q Okay. But I'm -- as a scientist, would
- it matter to you that you were asked to provide a
- 20 report concerning the likelihood of asbestos being
- in a Johnson & Johnson mine, and Johnson & Johnson
- had testing of that mine and never revealed it to
- 23 you?
- MR. FROST: Objection to form.
- THE WITNESS: No.

- 1 BY MR. PLACITELLA:
- Q Okay. You say in your report -- well,
- let's just go to the summary in your report, your
- 4 summary of your opinions -- you state in your
- 5 report: "Based upon their geologic settings,
- 6 reports from mine geologists and literature,
- 7 descriptions of the ore deposits provided in
- 8 cosmetic talc for the relevant body powder, it is
- 9 unlikely that asbestos could be found in the talc
- 10 mines -- in the talc products from these mines."
- 11 Correct?
- MR. FROST: Where are you reading from,
- 13 Chris?
- 14 THE WITNESS: Please show me where you
- 15 are.
- MR. PLACITELLA: Why don't we take a
- break, and I'll highlight it and move it faster
- 18 that way. How's that?
- MR. FROST: Sounds good. Let's take a
- 20 break.
- 21 THE VIDEOGRAPHER: The time is
- 22 10:14 a.m. We're going off the record.
- 23 (Recess.)
- THE VIDEOGRAPHER: The time is 10:27
- a.m., and we are back on the record.

- 1 BY MR. PLACITELLA:
- Q Okay. I believe you told me that
- information in possession of the Johnson & Johnson
- 4 concerning whether there was asbestos in the
- 5 Johnson & Johnson talc mines was irrelevant to you
- 6 because it was not part of your charge. Is that
- 7 your testimony?
- MR. FROST: Objection to form.
- 9 THE WITNESS: My charge was to review
- 10 the literature and the reports by Drs. Longo and
- 11 Rigler. So it did not include requests to review
- 12 anything else.
- 13 BY MR. PLACITELLA:
- 14 Q But you did review unpublished reports
- provided to you by counsel of Dr. Pooley related
- 16 to the mines at issue, correct?
- 17 A I did.
- 18 Q Okay. So those unpublished reports were
- 19 relevant to your opinions according to your own
- 20 report, correct?
- MR. FROST: Objection. Form.
- THE WITNESS: They were relevant
- particularly because of the paucity of data in the
- 24 literature.
- 25 BY MR. PLACITELLA:

- 1 O And if Johnson & Johnson had more data
- in addition to the Pooley reports, that certainly
- would have been relevant to your opinions, just
- 4 like the Pooley reports were relevant to your
- 5 opinions, correct?
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: I was not asked to review
- 8 testing of materials other than the description of
- 9 the geology of the mine.
- 10 BY MR. PLACITELLA:
- 11 Q Doctor, you just told me that the Pooley
- 12 reports were relevant to your opinions, and in
- 13 fact, you put them in your report, correct?
- 14 A Correct.
- 15 Q And if Johnson & Johnson had additional
- 16 reports concerning analysis of their mine, that
- certainly would have been relevant to your
- opinions, just like the Pooley reports were,
- 19 correct?
- MR. FROST: Objection.
- THE WITNESS: I was asked to review the
- 22 basic geology of the mine and the geologic setting
- of the deposits, and testing reports of products
- 24 are not relevant.
- 25 BY MR. PLACITELLA:

- 1 Q Ma'am, I'm not talking about products.
- 2 I'm talking about testing reports related to what
- 3 was coming out of the mine.
- 4 A Oh, I -- I'm sorry --
- MR. FROST: Objection to form.
- 6 THE WITNESS: -- I misunderstood.
- 7 BY MR. PLACITELLA:
- 8 O All right. So if Johnson & Johnson had
- 9 other testing reports like Pooley's concerning
- what was coming out of the mine, that certainly
- 11 would have been relevant to your opinions,
- 12 correct?
- MR. FROST: Objection.
- 14 THE WITNESS: It's very hard to say
- without seeing them.
- 16 BY MR. PLACITELLA:
- 17 Q But you were not provided any reports
- other than the select report from Dr. Pooley,
- 19 correct?
- MR. FROST: Objection to form.
- THE WITNESS: I was only provided the
- two reports by Dr. Pooley.
- 23 BY MR. PLACITELLA:
- Q Did you ask counsel for Johnson &
- Johnson, were there any other similar reports of

- 1 the Vermont mine other than Dr. Pooley?
- MR. FROST: Objection.
- THE WITNESS: I asked if -- if there --
- 4 let me just say what I -- I asked if they had any
- 5 other information on the geology of the deposits.
- 6 BY MR. PLACITELLA:
- 7 Q And the response was what?
- 8 A No.
- 9 Q Now -- okay. I want -- I want to just
- 10 make sure I got one of the things you said before
- 11 correct. Is it your opinion that the geology of
- 12 all the talc mines in Vermont would be essentially
- 13 the same?
- 14 A It is not.
- 15 O It is not. Okay.
- 16 And how would it differ?
- 17 A The minerals that are present vary in
- abundance and in what they are, the identity of
- 19 the mineral.
- Q Okay. Now, I want to just go back to
- 21 your report what we were talking about when we
- 22 broke. I want to ask you about some statements in
- 23 your report.
- You state in your report as a basis for
- 25 your report, correct --

```
1
                            Would you please --
           Α
                I'm sorry.
 2.
           0
                I'm sorry. Page 4.
 3
                "Talc ore is mined for both industrial
 4
    and cosmetic use but from different ore bodies and
 5
    in different mines."
 6
                And then you say: "Talc ore used for
 7
    cosmetic purposes, however, is different."
 8
    that?
 9
           Α
                Yes.
10
                Did Johnson & Johnson tell you that they
11
    obtained the talc for industrial use and cosmetic
12
    use from the exact same mine in Vermont?
13
                MR. FROST: Objection to form.
14
                THE WITNESS:
                              No.
15
    BY MR. PLACITELLA:
16
                Did they tell you the opposite?
           Q
17
           Α
                No.
18
                Okay.
           O
19
                (Exhibit J&J-188 was presented to
20
                the witness.)
21
    BY MR. PLACITELLA:
22
                I'm going to show you what's been marked
           0
23
    J&J 188. I'm going to put it on the iPad --
24
    sorry. Got to find a better way to do that.
25
                THE VIDEOGRAPHER:
                                    I will pass it over
```

- 1 for you, Counsel.
- MR. PLACITELLA: Okay, thanks.
- 3 BY MR. PLACITELLA:
- 4 Q J&J 188 is -- attaches an affidavit from
- 5 the president of Windsor Minerals, which is a
- 6 Johnson & Johnson subsidiary that owned the
- Johnson & Johnson mine. See that, from Roger
- 8 Miller?
- 9 And that was submitted in Middlesex
- 10 County, New Jersey, as part of a basis by Johnson
- 11 & Johnson to request that the plaintiff dismiss
- their case as reflected on the first page. Do you
- 13 see that?
- MR. FROST: Objection to form.
- 15 BY MR. PLACITELLA:
- 16 Q It says: "Enclosed please find" --
- here, let's blow it up.
- 18 It says: "Enclosed please find an
- 19 affidavit on behalf of Windsor Minerals, signed by
- 20 Roger N. Miller, President of Windsor Minerals
- 21 since 1968: Do you see that?
- Then it goes on and says: "I trust that
- these documents will now enable you to sign a
- Dismissal as was done in the Yuhas file. I have
- taken the liberty of drafting the Dismissal and

- 1 enclosing the same for your signature, along with
- 2 a self-addressed envelope."
- 3 Do you see that?
- 4 A Yes.
- 5 O And then the affidavit of Johnson &
- 6 Johnson is attached. Do you see that?
- 7 MR. FROST: Objection to form.
- 8 BY MR. PLACITELLA:
- 9 Q And the affidavit on page -- on
- 10 paragraph 2 states: "The exclusive business of
- 11 Windsor Minerals is/has been for the last 18 years
- the mining and milling of talc from a single
- mining district in Windsor, Vermont. The mining
- 14 district is the exclusive source of talc for all
- of the Johnson's Baby Powder sold in the United
- 16 States. In addition to supplying the talc for
- Johnson's Baby Powder, Windsor Mineral also sells
- a portion of its product to independent industrial
- 19 users."
- Do you see that?
- 21 A I do.
- 22 O That --
- MR. FROST: Objection to the form.
- 24 BY MR. PLACITELLA:
- Q That information was not supplied to you

- 1 by Johnson & Johnson when forming your opinions,
- 2 correct?
- MR. FROST: Objection.
- 4 THE WITNESS: I've never seen this
- 5 affidavit.
- 6 BY MR. PLACITELLA:
- 7 Q And after you wrote in your report:
- 8 "Talc ore is mined for both industrial and
- 9 cosmetic use but for different -- but from
- different ore bodies and in different mines,"
- 11 after you wrote that in your report, Johnson &
- 12 Johnson never corrected that and told you they had
- 13 contrary information, correct?
- MR. FROST: Objection. That certainly
- 15 misstates the document.
- THE WITNESS: No.
- 17 BY MR. PLACITELLA:
- 18 Q Okay. Now, in your report -- going back
- 19 to the ELMO for a second -- you make a number of
- 20 statements about geology.
- The first on page 18, you state: "Based
- 22 under geologic settings, report from mine
- 23 geologists and literature descriptions of the ore
- deposits providing cosmetic talc for Johnson's
- 25 Baby Powder and Shower to Shower, it is highly

- 1 unlikely that asbestos could be found in the talc
- products from these mines." Correct?
- 3 A That's what it says, yes.
- 4 Q All right. You further state on page 20
- of your report, talking about the same deposits:
- 6 "There is nothing about the mode of formation of
- 7 this type of talc deposit that favors the
- 8 formation of asbestos." Correct?
- 9 A That's correct.
- 10 Q And then you -- as it relates to Pooley,
- 11 you say: "It's my understanding that the ore from
- the mine was the source of some of the talcum
- powder involved in this litigation."
- What mine was Pooley studying?
- MR. FROST: Objection to form.
- 16 If you know.
- 17 BY MR. PLACITELLA:
- 18 Q If you recall.
- 19 A I think the name Windsor was in the
- 20 report, but I -- I don't recollect.
- 21 Q Okay. "He and his team examined the
- samples he collected throughout the mine,
- including the ore and foot and hanging wall, and
- examined them by PLM x-ray defraction and
- transmission electron microscopy." See that?

- 1 A Yes.
- Q Okay. Then you go on to state, and
- we -- we went over this before: "Pooley's
- 4 detailed descriptions are consistent with
- 5 published descriptions of talc mines in the
- 6 Ludlow, Vermont area. The minerals list in the
- ore from several mines, including the Argonaut
- 8 Mine by mindat.org." Do you see that?
- 9 A Yes.
- 10 Q Okay. And then you go on to state
- 11 further down the page: "There is nothing about
- the mode or formation of this type of talc deposit
- that favors the formation of asbestos. However,
- this type of deposit is not known for associated
- 15 asbestos."
- Do you see that?
- MR. FROST: I will object to the form.
- THE WITNESS: Show me where you're
- 19 reading.
- 20 BY MR. PLACITELLA:
- Q Yes, ma'am.
- 22 A I'm sorry.
- 23 Q So your --
- 24 A So we've changed from Ludlow. We're now
- talking about carbonate-hosted deposits.

- 1 Q So that's different.
- 2 A Yes.
- 3 Q So that's irrelevant to Ludlow?
- 4 A Yes.
- O Okay. How come it's in your report?
- 6 A Because it's related to the Italian
- 7 mines.
- Q Okay. And then you state: "Cosmetic
- 9 forming veins of asbestos has not been reported in
- 10 cosmetic talc ore to my knowledge."
- 11 Does that refer to --
- 12 A Could you repeat the question, please?
- 13 Q Yes, ma'am. In your report you state:
- "Cosmetic-forming veins of asbestos has" --
- 15 chryso- -- I'm sorry. Scratch that.
- 16 "Chrysotile-forming veins of asbestos
- has not been reported in cosmetic talc ore to my
- 18 knowledge."
- Does that refer to the Italian mines,
- the Vermont mines, or both?
- 21 A This particular comment is under the
- 22 section on carbonate-hosted sources. Let me
- just -- no, I'm sorry, it doesn't. Three, that
- 24 would refer to Johnson -- I mean to the talc mines
- 25 in Vermont.

- Q Okay.

 2 A Yes, as well.
- Q And in your summary on the top, you say:
- 4 "When is asbestos likely to be found in talc
- 5 ores?" Correct?
- 6 A Yes.
- 7 Q And your summary is: "The formation of
- 8 talc does not require or favor the formation of
- 9 asbestos in the ore."
- 10 Do you see that?
- 11 A Yes.
- 12 Q Okay.
- 13 A Yes.
- 14 Q And then underneath that is where you
- say, Chrysotile has never been found in any
- 16 cosmetic talc ore to your knowledge, and you're
- 17 talking about Vermont. Correct?
- 18 A Yes.
- 19 Q Okay. Then again in your conclusions
- you state: "Although talc and asbestos can form
- in proximity to one another, the formation of talc
- does not require or favor the formation of
- 23 asbestos in the ore."
- 24 And then you say: "Based on the
- geologic settings, reports from the mine

- 1 geologists" --
- When you say "reports from the mine
- geologists," you're talking about in the published
- 4 literature?
- 5 A The only reports that I have on the
- 6 mines were from the Pooley -- from Cardiff.
- Okay. So when you say "reports from the
- 8 mine geologists, "you're talking about the private
- 9 reports, not the published reports.
- 10 A I am.
- 11 Q Okay. Those are the reports that
- 12 Johnson & Johnson gave you.
- 13 A That's correct.
- Q Okay.
- 15 -- "and literature descriptions of the
- ore deposits used to source the talc for the
- 17 cosmetic talc products at issue in this
- 18 litigation, it is unlikely that asbestos occurs in
- 19 these deposits." Do you see that?
- 20 A Yes.
- 21 Q And when you say "these deposits," do
- you mean both the Italian and the chrysotile
- deposits?
- MR. FROST: Objection.
- THE WITNESS: Chrysotile deposits --

```
1
    BY MR. PLACITELLA:
 2.
           0
                My mistake.
 3
                Do you mean both the Italian and the
 4
    Vermont deposits?
 5
           Α
                Yes.
                Okay. Now -- sorry. I don't know how
 6
           0
 7
     to -- so I just apologize to you.
 8
                MR. PLACITELLA: I'm going back to the
 9
    iPad now.
10
                THE VIDEOGRAPHER: Got it, sir.
11
                (Exhibit J&J-65 was presented to
12
                the witness.)
13
    BY MR. PLACITELLA:
14
                I've handed you a report from Mr. Vernon
15
    Zeitz concerning Windsor Mineral Corporation,
16
     "Examination of Talc Samples: The Argonaut Ore
17
    Body."
18
                Do you see that?
19
           Α
                Yes.
20
                Okay. And that was done in 1974,
21
    correct?
22
           Α
                Yes.
23
                The same year of the report that they
24
    gave you related to Dr. Pooley, correct?
25
           Α
                I think Dr. Pooley's reports were 1972.
```

- 1 Q Okay. And it was done by Walter
- 2 McCrone?
- 3 A It was from his lab.
- 4 Q Right. And they're a respected
- 5 laboratory, correct?
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: They are -- were.
- 8 BY MR. PLACITELLA:
- 9 Q And this report was not given to you by
- 10 Mr. Frost along with the Pooley reports, correct?
- MR. FROST: Objection.
- 12 THE WITNESS: It was not. I've never
- 13 seen it before.
- 14 BY MR. PLACITELLA:
- Q And if you go to Table 2 of the report,
- do you see where it talks about the results for
- the electron microscope on the talc ore for core
- samples?
- 19 A Yes.
- Q Then if you look at the chart, it
- 21 actually talks about how far down in the mine they
- took the samples for each sample. Do you see
- 23 that?
- MR. FROST: Objection to form.
- 25 BY MR. PLACITELLA:

- 1 If you look at the second row where it 0 2 says "Description Designation" --3 Here, let's blow it up. 4 Α It doesn't explain what that is. 5 Well, I'll represent to you -- do you 0 know who Dr. Hopkins is? 6 7 Α No. 8 I'll represent to you that Dr. Hopkins 0 testified in this case that those were the depths 9 10 from which the samples were taken. Do you see 11 that? 12 Α I do. 13 MR. FROST: Objection to form. 14 BY MR. PLACITELLA: 15 Okay. And do you see that they have a 0 column entitled "Chrysotile"? 16 17 I do. Α 18 And one for "Amphibole." Do you see 0 19 that? 20 I do. Α 21 Okay. And do you see in all the Q
- 22 highlighted sections where McCrone found
- 23 chrysotile in these core samples?
- MR. FROST: Objection to form.
- THE WITNESS: I do.

- 1 BY MR. PLACITELLA:
- 2 Q And this information was never provided
- 3 to you in order for you to do your report,
- 4 although you were given the unpublished
- 5 information from Dr. Pooley, correct?
- 6 MR. FROST: Objection.
- 7 THE WITNESS: I have never seen this
- 8 document.
- 9 BY MR. PLACITELLA:
- 10 Q Is this a document you would have liked
- 11 to have seen along with Dr. Pooley's report?
- MR. FROST: Objection.
- 13 THE WITNESS: I mean, I -- I would have
- to have looked at this quite carefully to know
- whether it would have been helpful or not, and I
- haven't had a chance to look at it. So...
- 17 BY MR. PLACITELLA:
- 18 Q Okay. Fair enough.
- 19 It was not supplied to you, so you --
- you couldn't make a decision whether it was
- 21 relevant or not, correct?
- 22 A That's correct.
- 23 (Exhibit J&J-89 was presented to
- the witness.)
- 25 BY MR. PLACITELLA:

- 1 Q Okay. Now, let me show you 89. Take a
- 2 chance to look at it.
- J&J-89 for -- I'll describe it for the
- 4 record is a report dated July 1, 1975, from
- 5 McCrone to Windsor Mineral Company.
- 6 Do you see that?
- 7 A I see -- is there a title where -- the
- 8 report you're referring to? I see a letter --
- 9 Q Right, there's a letter --
- 10 A -- from Mr. Grieger --
- 11 Q -- with attached -- correct.
- 12 A And some tables attached.
- O Correct. I want to go through those.
- 14 This letter and tables were never
- provided to you by Johnson & Johnson along with
- 16 the Pooley report, correct?
- 17 A Correct.
- 18 Q Okay. And in the first paragraph,
- 19 McCrone advises Johnson & Johnson that: "We have
- 20 examined two groups of samples using electron
- 21 microscope and selected area electron defraction
- to determine the extent of amphiboles or
- 23 serpentine contamination in these two groups of
- 24 samples."
- 25 See that?

```
1
                I --
           Α
 2
                MR. FROST: Objection to form.
 3
                THE WITNESS:
                              I do.
 4
    BY MR. PLACITELLA:
                It says: "The first group consisted of
 5
           0
 6
    29 samples which were taken from your ore body."
 7
                Are you with me?
 8
           Α
                Yes.
 9
                Okay. And they say: "The second group
           0
10
    consists of seven samples which were sent to us
11
    subsequently to be analyzed separately.
12
    general conclusion that we came to in this study
13
    is that these samples do show some amphiboles but
14
    at extremely low level."
15
                Do you see that?
16
           Α
                Yes.
17
                Okay. And in the next paragraph, they
18
    talk about that they did a running tabulation of
19
    the samples for total fiber content. Do you see
20
    that?
21
           Α
                Yes.
22
                Okay. And if you go to the Table 1,
           0
23
    they talk about confirmed asbestos visual. Do you
24
    see that?
```

Α

Yes.

25

- 1 Q And they indicate that on the samples,
- 2 at least that I've highlighted, that they found --
- 3 they confirmed asbestos visually in talc samples
- 4 with the label "HC." Do you see that?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: That you have highlighted
- 7 that.
- 8 BY MR. PLACITELLA:
- 9 Q Yes, ma'am.
- 10 A Yes, mm-hmm.
- 11 Q I'm sorry. Yes, Doctor.
- 12 And were you aware that HC stands for
- 13 Hammondsville cosmetic talc?
- MR. FROST: Objection to form.
- THE WITNESS: No.
- 16 BY MR. PLACITELLA:
- Q All right. On the next Table 2, they
- talk about description of sample content of
- 19 sediment. Do you know what sediment generally
- refers to when they're looking at something
- 21 geologically?
- 22 A Yes.
- Q What does that refer to?
- 24 A Sediment is particulate that has been
- deposited by water, generally.

- 1 Q Okay. And --
- 2 A Or wind.
- Q Okay. And again, they list sample
- 4 numbers, they have the word "asbestos," and then
- 5 they quantify low to medium the number of fibers
- 6 they saw, correct?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: It's not clear to me what
- 9 the various columns -- how they relate to one
- 10 another.
- 11 BY MR. PLACITELLA:
- 12 Q Okay. Well, you see next to HC, they
- have the word "asbestos" on the column at the top,
- 14 and if you go down where it says "HC," it says
- 15 "low."
- 16 A Yes --
- MR. FROST: Objection to form.
- 18 THE WITNESS: -- I see that.
- 19 BY MR. PLACITELLA:
- Q Okay. Now, this document was not
- 21 provided to you as -- for your consideration and
- for you to determine whether it was relevant or
- not to your opinions, correct?
- MR. FROST: Objection to form.
- THE WITNESS: It was not provided to me.

- 1 BY MR. PLACITELLA:
- Q Okay. Now, were you aware that one of
- 3 the mines that was owned by Johnson & Johnson,
- 4 the -- there was a scientist who testified under
- oath in 1983 that they found chrysotile asbestos
- 6 in the talc mine?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: No.
- 9 BY MR. PLACITELLA:
- 10 Q Would that have been relevant to your
- 11 consideration?
- MR. FROST: Objection to form. Assumes
- 13 it's correct.
- 14 THE WITNESS: I don't know. It --
- 15 BY MR. PLACITELLA:
- 16 Q I'm going --
- 17 A Testimony normally I would not have
- 18 considered relevant.
- 19 Q So if a scientist testified under oath
- that they tested the mine and found chrysotile
- 21 asbestos in the Johnson talc mine, would that be
- relevant to your opinions as to whether it was
- likely or not that there was -- would be asbestos
- in the Johnson mine?
- MR. FROST: Objection to form.

- 1 And, Chris, if you have a document you
- 2 want to show her --
- MR. PLACITELLA: I'm just asking in
- 4 general.
- 5 MR. FROST: -- go ahead and do that,
- 6 but -- objection.
- 7 THE WITNESS: As a scientist, I would
- 8 like to see data.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. So testimony would not be
- 11 relevant to you.
- MR. FROST: Objection to form.
- 13 THE WITNESS: I -- I would like to see
- 14 data.
- 15 BY MR. PLACITELLA:
- 16 Q My question is, if there was testimony
- from the scientist about what he found, that would
- 18 not be relevant to your considerations? That's
- 19 all I'm asking.
- MR. FROST: Objection to form, asked and
- answered.
- THE WITNESS: No.
- 23 (Exhibit J&J-179 was presented to
- the witness.)
- 25 BY MR. PLACITELLA:

- 1 Q Okay. Let me show you -- you have in
- 2 front of you Johnson & Johnson-179, which is a
- 3 letter from McCrone Associates to Roger Miller
- 4 dated November 2nd, 1984.
- 5 Do you see that?
- 6 A Yes.
- 7 Q Was this -- was this document provided
- 8 to you by Johnson & Johnson along with the Pooley
- 9 report concerning unpublished findings related to
- 10 the Johnson & Johnson mines?
- MR. FROST: Objection to form.
- 12 THE WITNESS: No.
- 13 BY MR. PLACITELLA:
- 14 Q Okay. And in this document it talks
- about testing that McCrone did concerning air
- samples using a transmission electron microscope,
- 17 correct?
- MR. FROST: Objection to form.
- THE WITNESS: That's correct.
- 20 BY MR. PLACITELLA:
- 21 Q And what they did is, according to this
- letter from McCrone to -- to Johnson & Johnson,
- they found chrysotile asbestos in the air samples,
- 24 correct?
- MR. FROST: Objection to form.

- 1 THE WITNESS: That's what the document
- 2 says.
- 3 BY MR. PLACITELLA:
- Q So, for example, where it says, Sample
- No. 8: 6 times 10 to the 4th, what does that mean
- 6 to you?
- 7 A Six with four zeroes.
- 8 Q Right. So how many fibers would -- did
- 9 they find?
- MR. FROST: Objection to form.
- 11 THE WITNESS: 60,000.
- 12 BY MR. PLACITELLA:
- 13 O 60,000? Now --
- 14 A Pardon me. It may not indicate that
- they found that many particles. They extrapolated
- 16 from some assessment of the filter, I would
- imagine. But I don't know. I really can't
- 18 comment.
- 19 Q Okay. You -- you were not provided the
- underlying data for this, correct?
- 21 A No.
- MR. FROST: Objection.
- 23 BY MR. PLACITELLA:
- Q And in order for you to make a fair
- assessment of what this means, Johnson & Johnson

- would have had to have provided you with the
- 2 underlying data so you could study it and
- 3 determine whether it was relevant or not to your
- 4 opinions, correct?
- 5 MR. FROST: Objection to form.
- And this is assuming a lot of facts that
- 7 certainly aren't in the record. We've done this
- 8 several times now.
- 9 MR. PLACITELLA: Please, that's not a --
- 10 THE WITNESS: These are air filters.
- 11 There's no information on where they came from.
- 12 BY MR. PLACITELLA:
- Q Okay. And you would need to know that
- in order to determine whether it was relevant to
- 15 your opinion, correct, where they came from?
- MR. FROST: Objection to form.
- 17 THE WITNESS: No.
- 18 BY MR. PLACITELLA:
- 19 Q Why not?
- 20 A Because I was not asked to evaluate the
- Johnson & Johnson products. That was not my -- my
- 22 assignment. My assignment was to review the
- literature and to review the reports, and that's
- 24 all.
- Q If you reviewed -- so you're -- well,

- 1 let me just make sure we're on -- we're on the
- 2 same sheet of music.
- What came out of the mine was not part
- 4 of your assignment, just what was in the mine?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: The -- my -- the request
- years was that I describe generally the origin of talc
- 8 deposits, look at it from a broad perspective, and
- 9 to examine -- to find anything I could in the
- 10 literature on the two mines in particular.
- 11 And I was asked -- I actually asked I
- 12 think for other reports -- no, I didn't. They
- gave me the Pooley report because I couldn't find
- 14 much on the mine itself in Vermont.
- 15 BY MR. PLACITELLA:
- 16 O But if Johnson & Johnson had more
- information on the mine in Vermont in addition to
- the Pooley report, that certainly would have been
- relevant to your consideration, correct?
- MR. FROST: Objection to form.
- 21 THE WITNESS: This is not information
- 22 about the mine.
- 23 BY MR. PLACITELLA:
- Q Okay. I want to -- we'll get there.
- So -- take a look at this (indicating).

- 1 (Exhibit J&J-202 was presented to 2. the witness.) 3 BY MR. PLACITELLA: 4 I'm just going to describe for the 5 record, and I'll give you a chance to look at it, this is a March 25th, 1992 report entitled "Cyprus 6 7 Ore Reserves - Arsenic & Tremolite." 8 MR. FROST: Objection to form. 9 BY MR. PLACITELLA: 10 And I'll ask you to take a look at that. O 11 MR. FROST: Misstates the document. 12 THE WITNESS: Would you like me to read 13 it? 14 BY MR. PLACITELLA: 15 I just want you to look at it. 0 16 Well, I've looked at it. Α 17 Okay. And this does pertain to the mine 18 in Vermont, correct? 19 MR. FROST: Objection to form. 20 BY MR. PLACITELLA: 21 In fact, it pertains directly to the 22 Argonaut Mine in Vermont, correct? 23 MR. FROST: Same objection. 24 THE WITNESS: Where do you see that?
- 25 BY MR. PLACITELLA:

- 1 Q Sure. If you go to the very next page,
- under "Tremolite," do you see where it talks right
- down at the bottom about the Argonaut and Black
- 4 Bear mines?
- 5 A I see that paragraph, yes.
- 6 Q And so this is about the mine. We
- 7 agree?
- 8 MR. FROST: Objection to form.
- 9 THE WITNESS: It appears to be so, yes.
- 10 BY MR. PLACITELLA:
- 11 Q And this particular report was not
- 12 provided to you along with the Pooley report for
- information related to the mines that supplied
- 14 talc for Johnson & Johnson products, correct?
- MR. FROST: Again, objection to form.
- 16 Mischaracterizes the document.
- 17 THE WITNESS: The document was not
- 18 provided to me.
- 19 BY MR. PLACITELLA:
- Q Okay. So in this report the author
- 21 states: "Vermont talcs are derived from altered
- 22 serpentine a natural host for asbestiform
- 23 minerals." Do you see that?
- 24 A I do.
- MR. FROST: Same objection.

- 1 BY MR. PLACITELLA:
- Q Do you agree with that statement?
- A I don't think so, no.
- 4 Q Okay. And why do you disagree with that
- 5 statement?
- 6 A The term "altered serpentine" is a very
- broad term, and so I don't really know how one can
- 9 just use the term "altered serpentine" and assume
- 9 that you would conclude that it's a host for
- 10 asbestiform mineral.
- 11 Q Okay. According to the author of this
- 12 report, he states: "There is certainly visible
- tremolite and actinolite in specific zones of the
- 14 Vermont deposits fibrous tremolite was
- identified by the writer in exposures and cores at
- 16 the East Argonaut and Black Bear mines."
- Do you see that?
- 18 A I do.
- MR. FROST: Objection to form, and
- 20 again, it mischaracterizes the document.
- 21 BY MR. PLACITELLA:
- 22 Q Do you have any information in your
- possession provided to you by Johnson & Johnson to
- 24 contradict that statement?
- MR. FROST: Objection to form.

- 1 THE WITNESS: I have no idea what he
- 2 means by "fibrous." I don't know this person, I
- don't know what his qualifications are, and I know
- 4 nothing about his terminology use.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. And it says: "Cyprus staff
- 7 report past tremolite from the Hammondsville and
- 8 Clifton deposits."
- 9 Do you know anything about that?
- MR. FROST: Objection to form.
- 11 THE WITNESS: No.
- MR. PLACITELLA: Okay. Now -- first,
- 13 let me give this to your counsel, because I only
- 14 have two copies.
- MR. FROST: I'm just generally going to
- object to the use of this document --
- MR. PLACITELLA: Mm-hmm.
- MR. FROST: -- as it's not a document
- 19 that has been created or provided by Johnson &
- Johnson. I believe this was created by
- 21 plaintiffs' counsel.
- MR. PLACITELLA: Actually, it was
- created by Dr. Hopkins at this deposition, but
- we'll fight that battle for another day.
- MR. FROST: So Dr. Hopkins typed this

- 1 out at his deposition; is that --
- MR. PLACITELLA: Actually, what happened
- 3 was --
- 4 MR. FROST: -- what relevance for the
- 5 record?
- 6 MR. PLACITELLA: -- we did it at the
- 7 deposition. Then you and Dr. Hopkins went in a
- 8 room and made some changes to the deposition -- to
- 9 the chart, and then we came back out and we went
- 10 through the chart with Dr. Hopkins to make his
- 11 corrections.
- MR. FROST: Well, given the --
- MR. PLACITELLA: So -- but we'll let
- the -- we'll deal with that another day.
- MR. FROST: But given that I was not at
- 16 Dr. Hopkins' deposition, you know, that statement
- 17 certainly isn't fully accurate, but --
- MR. PLACITELLA: Okay.
- MR. FROST: -- I just want to lodge my
- objection for the record. This is not a document
- 21 that was produced by or provided by Johnson &
- Johnson.
- MR. PLACITELLA: Okay.
- MR. FROST: Feel free to use it, but I
- 25 have an objection for the record.

```
1
                MR. PLACITELLA:
                                 Okay.
 2
                MR. LOCKE: And I was at the deposition,
 3
    and I object to the characterization.
 4
                MR. PLACITELLA: Okay. Okay.
 5
                I just want to show you the end of the
 6
    deposition, so if you think I'm mischaracterizing
 7
    anything.
 8
                Can we go to the ELMO?
 9
                                    I can switch it.
                THE VIDEOGRAPHER:
10
                MR. PLACITELLA: Okay. Here is
11
    Dr. Hopkins' testimony.
12
                MR. FROST: Again, I object to the use
13
    of the video that's not directed as a question to
14
    the witness, but --
15
                (Audio played):
16
                       MR. PLACITELLA:
                                         So let me
17
                ask you the question. Do you need
18
                time to take a break, Dr. Hopkins,
19
                and look at Hopkins 28 and see if
20
                any of the additions or deletions
21
                that were made by this -- on the
22
                chart today are inaccurate as
23
                reflected in your testimony?
24
                       MR. BICKS: Again, I'll
25
                just object, and that's the
```

	·
1	witness's not job is not to do
2	that, and he need not do it.
3	BY MR. PLACITELLA:
4	Q. Okay. Do you need to
5	do that?
6	A. I'm not going to no,
7	I'll take my attorney's advice and
8	I will I will not do it. But
9	I'll leave this exhibit as being a
10	product of this deposition.
11	Q. Okay. Well, it was not
12	the product of this just this
13	deposition. It's a product of a
14	number of days, correct?
15	A. Yes, this deposition
16	and the the three days that we
17	or four days that we have
18	spent
19	Q. Correct.
20	A putting this chart
21	together.
22	Q. Correct.
23	A. It is a product of this
24	deposition.
25	Q. Okay. Thank you.

```
1
                (Conclusion of audio being
 2
                played.)
 3
                MR. FROST: So I actually think that
 4
    supports my objection, and my objection stands on
 5
    the record.
 6
                MR. PLACITELLA:
                                 That's fine.
 7
                MR. FROST: And thank you for showing
 8
    that.
 9
                MR. PLACITELLA: I just want to make
10
    sure the record is clear.
11
    BY MR. PLACITELLA:
12
                So let's look at this chart together.
           0
13
    Shall we?
14
                The chart has a number of columns.
                                                     One
15
    is the date, the exhibit number, the testing
16
    entity, who the author was, the recipient, the
17
    purpose, the test method, the mine if we knew what
18
    it was, what exactly was tested, any special
    preparations, what the tests revealed, any
19
20
    comments from Dr. Hopkins, and whether -- and it's
21
    cut off, but I represent to you, whether according
22
    to Dr. Hopkins the test -- the results satisfied
23
    Johnson & Johnson's definition of "asbestos." Do
24
    you see this?
```

MR. FROST: Again, I'm going to object

25

- 1 to the characterization of the document.
- 2 BY MR. PLACITELLA:
- Q Okay. So let's just walk through -- in
- 4 light of the fact that Johnson & Johnson gave you
- 5 an unpublished report of Pooley to rely upon, I
- 6 just want to go through this chart and be clear as
- 7 to whether any of the reports referenced on this
- 8 chart as related to the mines alone -- not end
- 9 products, okay? Are you with me?
- 10 A Okay. Sort of.
- 11 Q -- were provided to you.
- MR. FROST: Objection to form.
- 13 BY MR. PLACITELLA:
- Q Okay. So the first entry on this chart
- is from 1957 by Battelle -- Battelle related to
- 16 Italian talc, that was not provided to you, I take
- 17 it, correct?
- MR. FROST: Objection to form.
- 19 THE WITNESS: No.
- 20 BY MR. PLACITELLA:
- Q Okay. The report from 1968 from
- 22 Battelle concerning Val Chisone where they found
- tremolite was not provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: No.

- 1 BY MR. PLACITELLA:
- 2 Q Okay. The 5/28/1958 report from
- 3 Johnson & Johnson from Battelle concerning Val
- 4 Chisone where they found 6 tremolite and 6 to
- 5 10 percent fibrous talc, that was not provided to
- 6 you, correct?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: No.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. The December 4th, 1970 report
- 11 from the Colorado School of Mines concerning the
- 12 Hammondsville mine's core samples finding
- tremolite, actinolite, and fibrous talc, that was
- 14 not provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: No.
- 17 BY MR. PLACITELLA:
- 18 Q Okay. I want to skip all the ones that
- 19 talk about just what they found in products.
- The report from 1971, July 7th, Colorado
- 21 School of Mines on Vermont talc, that was not
- 22 provided to you, correct?
- MR. FROST: Objection to form.
- 24 THE WITNESS: No.
- 25 BY MR. PLACITELLA:

- 1 Q And certainly you were not provided the
- 2 report from McCrone from 1971 finding chrysotile
- 3 asbestos in the Shower to Shower satisfying
- 4 Johnson & Johnson's definition of "asbestos," that
- was never given to you because that was not of the
- 6 mine, correct?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: It was not provided.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. Let's go to the next page.
- 11 So skipping down to 1973, the 5/1/73
- 12 report concerning Hammondsville ore, that was not
- 13 provided to you, correct?
- MR. FROST: Objection.
- THE WITNESS: No.
- 16 BY MR. PLACITELLA:
- Q Okay. The May 8, 1973 report concerning
- the Hammondsville ore, that was not provided to
- 19 you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: No.
- 22 BY MR. PLACITELLA:
- 23 Q The 1973 report from the Colorado School
- of Mines that examined for chrysotile and/or
- tremolite using TEM in Vermont samples, and

- 1 identified chrysotile at a level less than 10
- 2 parts per million in the Vermont sample satisfying
- Johnson & Johnson's definition of "asbestos," that
- 4 was not provided to you, correct?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: The document was not
- ⁷ provided.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. The March 1970 report from
- 10 Dartmouth University concerning ore from the
- 11 Windsor mine was not provided to you, correct?
- MR. FROST: Objection.
- 13 THE WITNESS: It was not provided.
- 14 BY MR. PLACITELLA:
- 15 Q Do you see where I -- Dr. Hopkins
- 16 actually put in his column he has issues with the
- 17 conclusions in this report?
- MR. FROST: Objection to form.
- 19 THE WITNESS: I see that.
- 20 BY MR. PLACITELLA:
- Q Okay. The 4/24/74 report from McCrone,
- that's the one we just went through, right, where
- they say the purpose was whether or not there was
- 24 any significant content of asbestiform materials
- in the Argonaut, and they found chrysotile and

- 1 tremolite, which Dr. Hopkins said satisfied the
- 2 Johnson & Johnson definition of "asbestos," that
- was not provided to you, correct?
- 4 MR. FROST: Objection.
- 5 THE WITNESS: The document was not
- 6 provided.
- 7 BY MR. PLACITELLA:
- 8 Q Okay. The 5/8/74 report from McCrone
- 9 using an optical microscope and TEM on the Windsor
- ore, and do you see where Dr. Hopkins says here
- 11 "possible contamination of one test," that was not
- 12 provided to you, correct?
- MR. FROST: Objection to form.
- 14 BY MR. PLACITELLA:
- 15 Q I mean, I'm showing you the good and the
- bad, so I'm not leaving anything out.
- 17 A It was not provided.
- MR. FROST: Objection.
- 19 BY MR. PLACITELLA:
- Q Okay. Do you see the next report from
- 21 McCrone concerning the Argonaut ore body, where it
- 22 says "chrysotile fibers in ore and product in
- one-third of the samples tested," that was not
- provided to you, correct?
- MR. FROST: Objection to form.

- 1 THE WITNESS: The document was not
- 2 provided.
- 3 BY MR. PLACITELLA:
- Q Okay. The report from May 14th, '74,
- 5 from McCrone and Dartmouth concerning the
- 6 Hammondsville mine, that was not provided to you,
- 7 correct?
- 8 MR. FROST: Objection.
- 9 THE WITNESS: The document was not
- 10 provided.
- 11 BY MR. PLACITELLA:
- 12 Q By the way, do you have that 89 --
- that J&J 89 in front of you?
- 14 A I'm sorry. Is this something you've
- 15 given to me before?
- 16 Q Yes -- yes, ma'am. It says "J&J 89" on
- it. I just want to go back there for a second.
- 18 A Yes. Yes.
- 19 Q And if you -- I just put up here for --
- under Table 3, just where they describe what
- they've seen based on the photomicrographs, that's
- something that you do, correct? You look at
- photomicrographs and you describe what you see?
- 24 A I -- I look at preparations under the
- 25 microscope.

- 1 Q Okay. And you see here where it talks
- 2 about the HC sample: "Two bundles of amphiboles,
- 3 two single amphibole fibers." See that?
- 4 A I do.
- 5 O All right. That would even satisfy your
- 6 definition of "asbestos," right?
- 7 MR. FROST: Objection.
- 8 THE WITNESS: I'm sorry, but I don't
- 9 have any idea what criteria he was using to
- 10 identify it as amphibole or --
- 11 BY MR. PLACITELLA:
- 12 Q Okay. Well, let's go back then to the
- 13 chart.
- Under that same Exhibit J&J 89 where it
- 15 says: "Determine the extent of amphibole or
- 16 serpentine contamination. We kept a running
- tabulation of the asbestos we could possibly
- 18 identify."
- And in the chart, it says: "Confirmed
- 20 asbestos, low to medium bundles of amphiboles,"
- 21 and according to Dr. Hopkins, that satisfied
- Johnson & Johnson's definition of "asbestos."
- 23 That report was never provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: The document was not

```
1
    provided.
 2.
                (Exhibit J&J-97 was presented to
 3
                the witness.)
    BY MR. PLACITELLA:
 4
 5
                Okay. And there's another report,
           0
 6
    J&J-97, mentioned here from McCrone using TEM on
 7
    ore fibers of asbestos, according to Dr. Hopkins
 8
    satisfies Johnson & Johnson's definition of
 9
     "asbestos," that was never provided to you,
10
    correct?
11
                MR. FROST: Objection to form.
12
                THE WITNESS:
                              I'm not sure exactly what
13
    you're referring to, but the document, whatever it
14
    was, was not provided.
15
                (Exhibit Hopkins 28 was presented
16
                to the witness.)
17
    BY MR. PLACITELLA:
18
                Okay. I'm sorry to have to do this, but
19
    I have to make a record. Given the fact, ma'am,
20
    just -- Doctor, just so you know, you were
21
    provided some documents and not others, and all I
22
    want to do is make a record here of the
23
    information you were not provided.
24
                Are you with me?
25
                MR. FROST: Objection to form.
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- 1 THE WITNESS: I hear you.
- 2 BY MR. PLACITELLA:
- Okay. Now, there is a report here --
- 4 you were given a report from Dr. Pooley from 1972.
- 5 Do you recall that?
- 6 A Yes.
- 7 Q Okay. And in this chart there's a
- 8 report from 1977 from Dr. Pooley on the Vermont
- 9 samples where he found fibers of antigorite. That
- was not provided to you, correct?
- MR. FROST: Objection to form.
- 12 THE WITNESS: It was not.
- 13 BY MR. PLACITELLA:
- 14 Q Okay. The internal report of Johnson &
- Johnson from 2/9/1974 of the 66 composite samples
- 16 finding tremolite and actinolite, that was not
- 17 provided to you, correct?
- MR. FROST: Objection to form.
- 19 THE WITNESS: I don't know where you
- are, but no.
- 21 BY MR. PLACITELLA:
- Q Okay, ma'am, I'm right here
- 23 (indicating). I'm not -- I'm not -- now I'm on
- the fourth entry down.
- In 9/1/83, there was another McCrone

- 1 report to test for airborne fiber concentrations
- 2 at the Argonaut and Rainbow Mines finding 118
- fibers -- no, I'm sorry -- 118 fibers in Argonaut,
- 4 2,650 fibers in Rainbow, satisfying the Johnson &
- 5 Johnson definition of "asbestos," that was not
- 6 provided to you, correct?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: The document was not
- ⁹ provided.
- 10 BY MR. PLACITELLA:
- 11 Q Okay. In terms of your conclusions
- related to Italian talc, there was a report from
- 13 1985 to Olson on the Italian talc done in South
- 14 Plainfield, where they found 71.2 percent fibrous
- talc and 5.8 percent anthophyllite and asbestiform
- amphibole satisfying Johnson & Johnson's
- definition of "asbestos," that document was not
- 18 provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: It was not.
- 21 BY MR. PLACITELLA:
- Q Okay. I'll just go -- I won't go
- through the conclusion.
- The -- J&J-184, the 8/5/1986 report from
- 25 McCrone concerning Hammondsville air samples, that

- wasn't provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: The document was not
- 4 provided.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. We already went through the
- 7 Cyprus reports, so I won't do that.
- 8 The 2/9/1979 report -- internal report
- 9 from Johnson & Johnson related to Windsor, six
- 10 composite samples, that was not provided to you,
- 11 correct?
- MR. FROST: Objection to form.
- 13 THE WITNESS: The document was not
- 14 provided.
- 15 BY MR. PLACITELLA:
- 16 Q Okay. The 1958 -- May 9th, 1958 report
- 17 from Battelle concerning the Italian talc, that
- was not provided to you, correct?
- MR. FROST: Objection to form.
- THE WITNESS: The document was not
- 21 provided.
- 22 BY MR. PLACITELLA:
- Q Okay. The 1/24/58 report from Battelle
- concerning Italian talc, that was not provided to
- you, correct?

- 1 MR. FROST: Objection to form.
- THE WITNESS: The document was not
- 3 provided.
- 4 BY MR. PLACITELLA:
- 5 Q I'm almost done, I promise.
- 6 These are all on products. Okay.
- Down here in 1961, a report from
- 8 Battelle on the Hammondsville core, that was not
- 9 provided to you, correct?
- MR. FROST: Objection to form.
- 11 THE WITNESS: The document was not
- 12 provided.
- 13 BY MR. PLACITELLA:
- 14 Q Okay. The 1991 reports concerning the
- 15 Argonaut and Hamm Mines, they were not provided to
- 16 you either, correct?
- MR. FROST: Objection to form.
- 18 THE WITNESS: The documents were not
- 19 provided.
- 20 BY MR. PLACITELLA:
- Q Okay. And am I correct in order for you
- 22 to determine whether those -- all the reports that
- we went through would be relevant to your
- 24 assessment about whether it was likely or not that
- there would be asbestos in the mine sources for

- 1 Johnson & Johnson talc, you would actually have to
- 2 see the reports and make that determination,
- 3 correct?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: The request by Johnson &
- 6 Johnson for me was to review the literature, the
- 7 two mine reports, and the lab results from
- 8 Drs. Longo and Rigler.
- 9 BY MR. PLACITELLA:
- 10 Q Well, do you think it's fair to you as
- the person who is asked to give an opinion to
- 12 this -- in this case, for Johnson & Johnson to
- give you some non-published reports but not all of
- 14 the non-published reports for you to make your own
- determination as an expert as to whether they
- would be relevant to your opinions?
- MR. FROST: Objection to form.
- 18 BY MR. PLACITELLA:
- 19 Q Do you think that's fair?
- 20 A The reports that they provided were
- 21 helpful because they were a complete assessment of
- the mine, samples from the footwall, the hanging
- wall, the ore body, throughout the deposit. And
- those reports from Pooley or from his group at
- 25 Cardiff were -- were relevant.

- I couldn't follow everything that you
- were saying, but these appeared to be primarily
- 3 composites or air samples or things that really
- 4 don't relate to the geology of the mine.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. But you don't know without
- 7 actually looking at the report.
- 8 A That would be correct.
- 9 MR. FROST: Objection to form.
- 10 THE WITNESS: I said only from what you
- 11 provided.
- MR. FROST: And are you going to move on
- 13 from --
- MR. PLACITELLA: Yep.
- MR. FROST: -- this line of questioning?
- MR. PLACITELLA: Yeah.
- MR. FROST: So I just want to lodge
- another general objection, and move to strike all
- of the questioning that related to Hopkins 28, as
- 20 I can't verify here today that the various
- 21 assumptions and assertions made in this document
- 22 are accurate regarding the various underlying
- 23 things.
- MR. PLACITELLA: Well, I would have
- 25 hoped that you would have read the deposition at

- some point in time, since he was actually taken on
- the very subject of what was in Johnson & Johnson
- files and what, according to his own chart says,
- 4 the tests revealed. But we'll go through that
- 5 another day. So --
- 6 MR. FROST: I'm just making my objection
- ⁷ for the record.
- 8 MR. PLACITELLA: Okay.
- 9 BY MR. PLACITELLA:
- 10 Q Now, part of your opinions --
- MR. PLACITELLA: What time do you want
- to break for lunch, by the way, just so I can do
- 13 some timing?
- MR. FROST: It's up to Dr. Wylie. I
- mean, I think we're fairly flexible.
- THE WITNESS: I'm not hungry.
- MR. PLACITELLA: That's fine.
- MR. FROST: There we go.
- 19 BY MR. PLACITELLA:
- Q Okay. Part of your opinions in this
- 21 case focus on what you believe is an acceptable
- definition of "asbestos," correct?
- MR. FROST: Objection to form.
- 24 THE WITNESS: Correct.
- 25 BY MR. PLACITELLA:

```
1
                So I'm just going to ask you --
           Q
 2
                THE VIDEOGRAPHER:
                                   iPad?
 3
                MR. PLACITELLA: Sure.
 4
    BY MR. PLACITELLA:
 5
                Do you agree with the definition on the
           0
              "Asbestos is defined to be fibrous
 6
    screen:
 7
    serpentine, chrysotile, and the fibrous forms of
 8
    the amphibole group as represented by amosite,
 9
    anthophyllite, chrysotile, tremolite, asbestos and
    actinolite"?
10
11
                Do you agree with that definition?
12
                MR. FROST:
                           Objection to form.
13
                THE WITNESS:
                              No.
14
    BY MR. PLACITELLA:
15
                Okay. So as you sit here today, you'll
           0
16
    understand that you are testifying that you
17
    disagree with the definition of "asbestos" of
18
    Johnson & Johnson. Did you know that?
19
                MR. FROST: Objection to form.
20
                THE WITNESS:
                              No.
21
                MR. PLACITELLA: Give me a second.
22
    BY MR. PLACITELLA:
23
                Okay. Do you disagree with the
24
    definition put up on the screen: "Asbestos is
25
    defined to be fibrous serpentine and chrysotile,
```

- 1 and the fibrous forms of amphibole group as
- 2 represented by amosite, anthophyllite,
- 3 crocidolite, tremolite and actinolite"? Do you
- 4 agree with that definition?
- 5 MR. FROST: Objection to form.
- THE WITNESS: No.
- 7 BY MR. PLACITELLA:
- Q I put up that definition of "fiber" from
- 9 the -- directly from OSHA's website. And it
- 10 states: "Fiber means a particulate form of
- 11 asbestos 5 micrometers or longer with a length-to-
- diameter ratio of at least 3 to 1."
- Do you agree with that definition?
- 14 A That is the NIOSH definition.
- 15 Q All right. Do you agree with that
- 16 definition?
- 17 A It is not the way I would use the term
- 18 "fiber."
- 19 Q So you disagree with it?
- 20 A Yes.
- Q Okay. Do you know what TSCA is? TSCA
- acronym, do you know what it is?
- 23 A Toxic Substance Control Act.
- Q Right. And you know that that was an
- 25 act of Congress attempting to control hazards in

```
1
    the environment?
 2.
                MR. FROST: Objection to form.
 3
                THE WITNESS: Not -- I'm -- not really.
 4
    BY MR. PLACITELLA:
 5
                Okay.
           0
 6
           Α
                I -- I couldn't verify what you said.
 7
                Okay. I want to show you the definition
    from TSCA and ask you if you agree with it.
 8
 9
                It says: "Section 202 defines
10
     'asbestos' as the asbestiform varieties of six
    fiber types: Chrysotile (serpentine), crocidolite
11
12
     (riebeckite), amosite" --
13
                Can you give me that? I can't say that
14
    one.
15
                Cummingtonite-grunerite.
          Α
16
                Very good. You get an A for that one.
           Q
17
                -- anthophyllite, tremolite or
18
    actinolite."
19
                The latter five fiber types are
20
    amphibole varieties. Do you see that? Do you
21
    agree with that definition?
22
           Α
                I do.
23
                MR. FROST: Objection to form.
24
                And again, I'll generally object to the
```

use of these documents that we're putting up on

25

- 1 the screen. We're not getting context of where
- they're coming from, what they are, whether
- 3 they're regulations, whether they come from the
- 4 federal regulations, whether they're printoffs of
- 5 websites. So I'll just generally lodge an
- 6 objection to the use of the documents in this
- 7 manner.
- 8 MR. PLACITELLA: Okay.
- 9 BY MR. PLACITELLA:
- 10 Q Has -- has your definition of what
- 11 constitutes a countable asbestos fiber under the
- microscope changed at all over time?
- MR. FROST: Objection to form.
- 14 THE WITNESS: I don't believe I have a
- 15 countable definition.
- 16 BY MR. PLACITELLA:
- Q All right. Okay. Has your definition
- of "fiber" -- "asbestos fiber" changed over time?
- MR. FROST: Objection to form.
- THE WITNESS: Perhaps.
- 21 BY MR. PLACITELLA:
- Q Okay. When you say "perhaps," what do
- you mean by that?
- 24 A Well, I -- I don't remember precisely,
- but certainly over a course of my life's work,

- 1 I've learned a lot. So my guess is that my papers
- would reflect an evolution in my thinking.
- Q Okay. So what I would like to do, at
- 4 least before lunch, is at least get down what your
- ⁵ definition actually is. Because I was kind of
- 6 having a hard time looking at it from your report,
- 7 and I looked a lot of your articles.
- 8 So can we just go over, and I'll try to
- 9 write slowly and correct, get my spelling right of
- what your -- your, Ann Wylie's, current definition
- is, and I'll write it down. So we're all
- 12 walking -- working from the same sheet of music,
- okay?
- 14 All right. So let's start.
- 15 A You can write the TSCA definition down.
- 16 I'm happy with that.
- 17 Q You're -- well, why don't we just write
- down what your definition is, Ann Wylie.
- 19 A The asbestiform varieties" --
- Q Okay.
- 21 A -- of six regulated minerals.
- 22 Chrysotile.
- Q Uh-huh.
- 24 A Anthophyllite.
- Q Oh, yeah.

```
Would you like me to spell it for you?
 1
           Α
 2
           Q
                You want to see if I can do it.
 3
                Two Ts, right?
 4
           Α
                No.
 5
                Go ahead.
           0
                Grunerite.
 6
           Α
 7
                Oh, forget it. You want to write it
           Q
 8
    down?
 9
                Grunerite.
           Α
10
           Q
                Okay. Anthophyllite.
11
                Spell grunerite.
12
           Α
                Grunerite.
13
                Go ahead.
           0
14
                G-R-U-N-E-R-I-T-E.
           Α
                Okay.
15
           0
16
           Α
                Tremolite.
17
                Mm-hmm.
           Q
18
                Actinolite.
           Α
19
                And what have I left out? No, it should
20
    be -- chrysotile and -- anthophyllite -- no, you
21
    have that.
22
                We already did that.
           0
23
                Chrysotile, anthophyllite, grunerite --
           Α
24
    oh, riebeckite.
25
           Q
                Spell that one.
```

- 1 A R-I-E-B-E-C-K-I-T-E.
- 2 Q That's it?
- 3 A Yes.
- Q Okay. Now, just so we're clear, what is
- 5 this the definition of?
- 6 A Regulated minerals.
- 7 Q Of regulated minerals.
- 8 A It's the definition of "asbestos."
- 9 Q Okay. Now, are there certain things
- that you look at under a microscope to determine
- 11 whether what you're seeing satisfies this
- definition? What do you look for?
- 13 A Yes.
- Q And what is that? By the way, has that
- 15 changed over time?
- 16 A No.
- Q Okay. So we'll just -- tell me what you
- 18 need.
- 19 A I believe we need to be more specific
- than microscope.
- Q Okay. What do you need?
- 22 A A polarized light microscope.
- Q Nothing else?
- 24 A Well, we could start there.
- Q Okay. So PLM. Is that fair?

```
1
           Α
                Yes.
 2.
           0
                Okay. What do we need?
 3
           Α
                We need to see the presence of fiber
 4
    bundles.
 5
                Okay. So, one, fiber bundles.
           0
 6
                Two?
 7
                Composed of fibrils of a narrow width.
           Α
                When you say "narrow width," what --
 8
           0
    what's the width?
 9
10
                Normally less than 0.5 micrometers.
           Α
11
                Okay. Less than 0.5 micrometers?
           0
12
           Α
                Yes.
13
                Okay. Now, when you say "fiber
           0
14
    bundles, " what do you mean by that?
15
           Α
                I mean --
16
                You know what, let's just get it down,
17
    and then we'll go back. Okay?
18
                So composed of fibrils of narrow width.
19
           Α
                That's correct.
20
                Less than 5 -- 0.5?
           0
21
                0.5.
           Α
22
                Okay, 0.5. What else?
           Q
23
           Α
                They need to be one of the -- one of the
24
    minerals.
25
                One of the minerals you --
           0
```

- 1 A One of the --
- 2 O -- mentioned before?
- 3 A Yes, mm-hmm.
- 4 Q So one of the recognized minerals?
- 5 A One of the minerals I listed before.
- 6 Q Okay. I'm going to need space to go
- 7 back and fill it in.
- Go ahead. What else? Four -- I'm on
- 9 four now.
- 10 A You've turned your chart over, so --
- 11 O Here. Hold on. I want to make sure.
- 12 Fiber bundles. Composed of fibrils.
- Needs to be one of the minerals.
- 14 A I would say an abundance of high aspect
- 15 ratio particles.
- 16 Q Okay. Four, abundance of high aspect
- 17 ratio particles.
- 18 Anything else?
- 19 A I think that would be the criteria I
- would apply.
- Q Okay.
- 22 A There are other criteria that can be
- added, and which I have listed elsewhere which we
- can add if you'd like, but it -- they're not a
- 25 necessary criterion.

- 1 Q So -- well, let's put "not necessary,"
- and then we'll keep going. Okay? Also but not
- 3 necessary. Okay.
- 4 A Fibers showing curvature.
- 5 Q Okay.
- 6 A Matted masses --
- 7 Q My handwriting is horrible. I should
- 8 have had Leigh do this.
- 9 Go ahead.
- 10 A Matted masses of fibers.
- 11 Q Okay.
- 12 A Anomalous optical properties.
- Oh, boy, we'll spend some time on that
- 14 one. Anomalous --
- 15 A -- optical properties.
- 16 Q Okay.
- 17 A And those are actually normally present.
- 18 Anomalous optical properties can be observed. So
- 19 I could move that --
- Q So they're normally present?
- 21 A Yes. I could put that to the upper
- 22 list.
- Q Oh, you're kidding. Okay. Move it to
- 24 five?
- A Mm-hmm.

- 1 Q All right. Okay. Is that it?
- 2 A Sure.
- 3 Q Would you find it disrespectful if I
- 4 took my jacket off? It's very hot in here.
- 5 A No.
- 6 Q Good thing I didn't wear my Terps scarf.
- 7 All right. Does the term "population"
- 8 belong anywhere in these criteria?
- 9 A Under the optical microscope, these
- 10 refer to observations you might make about a
- 11 population of particles that have a single mineral
- 12 identity.
- 13 Q Okay.
- 14 A So they don't all have to be present in
- 15 a single particle.
- 16 Q Okay. So how would -- where do you want
- me to put "population," under five?
- MR. FROST: Can you move it over so we
- 19 can see?
- THE WITNESS: I'm sorry, but I don't
- 21 think -- I -- you know, you are trying to put this
- in a way -- I would lay at the beginning to say
- that "in a population of asbestos, one would
- normally find, so that way we can begin --
- 25 BY MR. PLACITELLA:

- 1 Q Okay. Okay. So I'll put here -- you
- didn't know I was going to make you work this
- 3 hard, right?
- 4 Okay. So let's go back now for each
- 5 term, and we can do this up till lunch, and then
- 6 we'll -- I'm sure you'll by that time be hungry.
- Okay. So let's just talk about your
- 8 first term, your first requirement, fiber bundles.
- 9 MR. FROST: I was going to say, Chris,
- why don't we take a short break now, we've been
- 11 going for a little over an hour --
- MR. PLACITELLA: Mm-hmm.
- MR. FROST: -- and then we can jump into
- this, and then we'll do lunch after that.
- MR. PLACITELLA: That's fine.
- THE VIDEOGRAPHER: The time is 11:42
- 17 a.m. We're going off the record.
- 18 (Recess.)
- THE VIDEOGRAPHER: The time is 11:57
- a.m., and we're back on the record.
- 21 BY MR. PLACITELLA:
- O Okay. I wanted to define one term that
- we did not specifically define, and that is your
- definition of "asbestiform." And then we'll
- get in -- go back.

```
Okay. Can you give me that, please?
 1
 2
           Α
                It -- asbestiform applies to fibrils of
 3
    very narrow width that occur in parallel bundles.
 4
           Q
                Okay.
 5
                Bundles of parallel fibers, I should put
           Α
 6
     it that way.
 7
                Fibers of very narrow width --
           Q
 8
                -- in bundles that share an axis of
           Α
 9
     elongation that are --
10
                Chair?
           Q
11
           Α
                Share.
12
                Oh, share.
           Q
13
           Α
                Share.
14
                Okay.
           Q
15
                An axis of -- axis of elongation.
           Α
16
           Q
                Okay.
17
                But are randomly oriented in the other
           Α
18
     crystallographic directions.
19
                Randomly oriented --
           Q
20
                -- in the other crystallographic
21
    directions.
22
                Tell me how you spell crystallographic,
23
    and what --
24
           Α
                C-R-Y- --
25
           Q
                Yeah.
```

- 1 A -- S-T-A-L-L-O-G-R-A-P-H-I-C.
- Q Okay. Crystallographic --
- 3 A -- directions.
- 4 Q -- directions. Okay.
- 5 That sounds like an after-lunch -- okay.
- 6 So let's talk about how you define, and
- 7 what we went through before, "population," so we
- 8 have that down.
- 9 A A number of the same particles of the
- 10 same type in some way, defined in common -- by a
- 11 common definition of some sort.
- 12 Q A number of particles -- go ahead.
- 13 A Defined in some way.
- 14 Q In some way.
- A Right. A population of dogs is all
- 16 composed of dogs.
- Q Okay. So how many particles do you need
- 18 for a population? Is two enough?
- MR. FROST: Objection to form.
- THE WITNESS: I -- I don't really have
- 21 an answer for that. I've never tried to restrict
- 22 it in that way. And I've never seen something
- with just two particles in it that --
- 24 BY MR. PLACITELLA:
- Q Well, is three enough to become a

- 1 population? Four?
- 2 A It depends.
- MR. FROST: Objection to form.
- 4 BY MR. PLACITELLA:
- 5 Q So as you sit here today, you can't tell
- 6 me the number of particles that would satisfy your
- 7 definition of "population"?
- 8 A No, because it depends upon what the
- 9 defining characteristic is.
- 10 Q Okay. Well, if I have two dogs, is that
- 11 a population of dogs?
- 12 A Hmm.
- Q Or do I need three dogs?
- MR. FROST: Objection to form.
- THE WITNESS: I -- you want more than
- that based on the variety of dogs there are out
- there.
- 18 BY MR. PLACITELLA:
- 19 Q Okay. So if it's all one kind of dog,
- that's not a population?
- 21 A It would be a population of that kind of
- 22 dog.
- O So if it was like -- I like Golden
- 24 Retrievers. So if I have three Golden Retrievers,
- that's a population of Golden Retrievers?

- 1 A I don't know -- would you say you had a
- 2 population of Golden Retrievers if --
- Q I've had four, yeah.
- 4 A Did you refer to them as a population?
- 5 Q I don't know. I'm using your term.
- 6 A Well, I've never applied it to dogs.
- 7 Q Well, you just did.
- 8 A I did, but I -- I was just being
- 9 facetious.
- 10 O Okay. So --
- 11 A I don't have a definition. The United
- 12 States Geological Survey recommends that you --
- 13 you should look at several hundred particles to
- define a "population." So they have a definition.
- 15 But I don't think I've ever --
- 16 Q Okay.
- 17 A -- tried to narrow it down in that way.
- Okay. Now, you said "fiber bundles."
- What do you mean by "fiber," and what do you mean
- 20 by "bundles"?
- 21 A Bundles are groups of fibers that share
- 22 a common axis of elongation and -- but are easily
- 23 separable from one another.
- Q Groups of fibers that share common axis
- of -- you got to do me a favor. People might read

- 1 this, so if you see I'm really screwing up on
- 2 spelling, just tell me because I don't want to be,
- you know, accused like a Dan Quail at some point.
- 4 Okay. So common axis of --
- 5 A -- elongation.
- 6 Q Okay. What else?
- 7 A I suppose you would have to say in a --
- 8 in a particle or in an entity or something -- in a
- 9 particle.
- 10 Q In a particle.
- 11 A I have to say I'm not exactly used to
- writing things like this on the fly. I usually
- 13 spend a lot of time to make sure my definitions
- 14 are quite rigorous.
- Q Well, I'm actually going --
- 16 A It's not so easy under these
- 17 circumstances.
- Q Well, I hear you, but I'm trying -- I'm
- 19 actually going slow, one, so I can understand what
- you're saying.
- A Mm-hmm.
- Q And, two, so you take your time because
- it's going on a record.
- 24 A Yes.
- 25 Q So by me being a little slow on the

- 1 uptake gives you the opportunity to make sure you
- 2 have the record the way you want it. Okay?
- So -- so you say -- and then you say
- 4 "fiber," how do you define "fiber"?
- 5 A A particle that attains its shape
- 6 through growth, formed in nature in that way.
- 7 Q Fiber. Okay. Tell me -- say it again.
- 8 A May I say there are more than one
- 9 definition of "fiber."
- 10 Q Well, I want just your definition.
- 11 A Well, I -- I'm telling you there's more
- than one definition of "fiber." So there are
- definitions of "fiber" that apply to counting
- 14 criteria that the government identifies as fiber.
- 15 So that's the set of definitions. So you're not
- 16 asking me for that.
- 17 Q No. I want your definition.
- 18 A So for me, a fiber is a particle that
- 19 attains -- it's long, thin, and attained its shape
- 20 in nature.
- 21 Q Long, thin, and attained its shape in
- 22 nature.
- 23 A And we refer to that as growing, but I
- don't want to confuse that with a plant where a
- geologist could say it grew that way.

- 1 Q Okay. So you say a particle that is
- long and thin. What do you mean by long?
- A With respect to its width. Long with
- 4 respect to its width.
- 5 Q So you don't have a --
- 6 A No.
- 7 Q -- length in mind?
- 8 A No.
- 9 Q Okay. So long with respect to its
- width. Is there a ratio or something that you
- 11 need?
- 12 A No.
- 13 Q So, long equals long width with respect
- 14 to its width.
- 15 And what do you mean by thin?
- 16 A Thin with respect to its length.
- Q Any particular width that you're --
- 18 A No.
- 19 Q Okay. So thin with respect to its
- length.
- Okay. And can I put for both of these
- 22 no particular measurement?
- 23 A Yes.
- Q No particular length or width, no
- 25 particular measurement?

- 1 A Well, no, there -- there are sort of
- 2 natural restrictions. You don't tend to find
- fibers in nature that are, you know, 5 centimeters
- 4 across.
- 5 Q Right.
- 6 A But -- no.
- 7 Q Okay. So then you say, "Composed of
- 8 fibrils of narrow width." Okay. What do you mean
- 9 by "fibril"?
- 10 A That's the smallest particle in an
- 11 asbestos bundle. It's a single crystal or it may
- 12 be twinned.
- 13 Q Well, can you actually get down to a
- 14 final fibril in an asbestos -- when you're talking
- 15 about asbestos?
- 16 A By polarized light microscopy?
- 17 O Yeah.
- 18 A You can't usually see the individual
- 19 fibrils, although if they're, you know, a little
- 20 bit on the wider side. But normally you don't see
- 21 the individual fibrils. You see groups of
- 22 fibrils.
- O Okay. And -- and you -- you say of
- 24 narrow -- fibrils of narrow width. What do you
- mean by that, narrow width?

- 1 A Could we -- could we go back? We're
- 2 talking about the -- again, we're now back not to
- 3 the definition of "fiber," but to the definition
- 4 of "asbestos" under the microscope. Let's be
- 5 clear what we're speaking about.
- 6 Q Right. I'm going under -- for what you
- 7 require, what you look for under the microscope.
- 8 A All right.
- 9 Q And you said, "Composed of fibrils of
- 10 narrow width."
- 11 A Yes.
- 12 Q Okay. So I just want to make sure I got
- 13 it down.
- 14 A Yes.
- O Go ahead. Is it less than 5 microns?
- 16 Is that what you mean?
- 17 A That would be -- less than 5 microns?
- 18 No.
- 19 Q 0.5 microns. I'm sorry.
- 20 A Well -- yes.
- 21 Q Okay. So narrow width equals less than
- 22 0.5 microns?
- 23 A For optical microscopy.
- O You mean under a PLM?
- 25 A Yes.

- 1 Q Okay. You say -- are we talking about
 - one of the regulated minerals?
- I'll go back and write them down over
- 4 lunch, okay, so we don't have to do that now.
- 5 You say, "Abundance of high aspect ratio
- 6 particles." What do you mean by "abundance"?
- 7 A What do I mean by "abundance"? Well --
- 8 Q More than one dog?
- 9 A More than one dog.
- 10 Q So "abundance" means more than one?
- 11 A More than one.
- 12 Q Okay. Of high aspect ratio -- well,
- let's start with particles. What do you mean by
- 14 particles?
- 15 A A piece of a mineral or a piece of
- 16 composite minerals. I mean, it's -- a particle is
- just a particle. We can look these up in the
- dictionary. They're not geologic terms.
- 19 "Particle" is not a geologic term.
- Q Well, I'm just trying to understand --
- 21 A That's fine.
- Q Okay. And then high aspect ratio, what
- do you mean by that? Let me write that down.
- 24 A Well, I -- I have published 20-to-1.
- 25 That would be high aspect ratio.

- 1 Q Okay. I've also seen publications of
- yours listing 100-to-1. Where does that come
- 3 from?
- 4 A Well, you can find asbestos particles
- 5 that are 100-to-1.
- 6 Q But it's not a requirement of yours if
- 7 yours is 20-to-1?
- 8 A Those would be abundant. If -- those
- 9 would be abundant in the population.
- 10 Q Okay.
- A Mm-hmm.
- 12 Q So you'd want more than one 20-to-1
- 13 particle.
- MR. FROST: Objection to form.
- THE WITNESS: I'm a little unclear. But
- if we define a "population" as being a number of
- particles of similar mineral type, and you need to
- have an abundance within that population of high
- 19 aspect ratio particles. I have actually published
- mean aspect ratios of 20-to-1 or greater -- yeah,
- 21 mean.
- 22 BY MR. PLACITELLA:
- O Okay. So in a population, what
- 24 percentage of the particles would you need to be
- 25 greater than 20-to-1 in order to satisfy your

definition? 1 2. Α I would never apply that kind of 3 You could have bundles that are 3-to-1. criteria. 4 Q I'm sorry. I'm not sure I understand. 5 You said you could have bundles that are 3-to-1? 6 7 Yes. Α 8 But that wouldn't satisfy your --0 9 Yes, it's a bundle. It's a bundle. Α 10 Okay. So that's what I'm trying to 11 understand. In your population --12 Α Yes. 13 -- what percentage of the particles --0 14 right? 15 Yes. Α 16 -- need to be greater than 20-to-1? Q 17 The mean -- what I -- I have published Α 18 statements that say that the mean aspect ratio is 19 20-to-1 or higher. 20 Mm-hmm. 0 21 And those are of known asbestos Α 22 materials. 23 0 Okay. 24 So those characteristics are for the

asbestos that I've looked at.

25

- 1 Q Okay. But you said an abundance, which
- 2 is more than one, of minerals --
- A Much more than one.
- 4 Q Okay.
- 5 A I mean you were trying to tell me that I
- 6 only needed two. I think I --
- 7 Q No, I --
- 8 A -- I need much more than that.
- 9 Q Well, I'm just going by what you said.
- 10 That's why I wrote it down slowly.
- 11 A Yes. Okay.
- 12 Q So is three dogs enough?
- 13 A Well, greater than one is -- could be a
- thousand, couldn't it?
- 15 Q But it could be two dogs.
- 16 A But I would never call on two dogs.
- Q Well, how many dogs do we need before
- 18 you -- it satisfies your definition?
- 19 A Well, you have to be --
- MR. FROST: Objection to form.
- 21 THE WITNESS: You have to be quite
- 22 careful to make sure that you have sufficient
- information, and that really depends on -- it
- really depends. I can't really quite answer that.
- 25 BY MR. PLACITELLA:

- 1 Q Okay. When you have published that you
- 2 need aspect ratios of 100-to-1, what did you mean
- 3 by that?
- 4 A I've never said that was a requirement.
- 5 O Never?
- 6 A No.
- 7 Q Okay. Now, you say this was not
- 8 required, right, fibers showing curvature?
- 9 A That's not required.
- 10 Q Okay. So I'm going to put first under
- 11 here, "Not required."
- Okay. And what do you mean by "showing
- 13 curvature"?
- 14 A That the particles are not straight.
- Q Okay. This -- this requirement doesn't
- 16 apply to tremolite, does it?
- 17 A It applies --
- MR. FROST: Objection to form.
- 19 THE WITNESS: It applies to all
- 20 asbestos. What are we -- I'm sorry. What do you
- 21 mean --
- 22 BY MR. PLACITELLA:
- Q Well, you don't usually get fibers with
- 24 curvature if you're looking at tremolite, correct?
- 25 A It depends on whether it's asbestiform

- 1 tremolite or not.
- 2 Q So if you see asbestiform tremolite,
- you -- you usually see curvature?
- 4 A You can see it.
- 5 MR. FROST: Objection to form.
- 6 BY MR. PLACITELLA:
- 7 Q But not always.
- 8 A It's true of all asbestos, not always.
- 9 Q Okay. Then matted masses of fibers.
- 10 What do you mean by "matted masses"? Not
- 11 required, right?
- 12 A No.
- O Okay. So let me write here, "Not
- 14 required." Okay. Okay. Matted masses.
- You promise you won't make fun of me
- when you leave here today, right?
- 17 A Promise.
- O Okay. "Matted masses," what is that?
- 19 A These are populations --
- 20 characteristics, I'm sorry, that I've observed in
- 21 some asbestos samples where the -- when you see it
- looking at it under the optical microscope, they
- 23 appear to be intertwined as though they were --
- 24 "interwoven" might be the right term.
- Q Okay. And when you say "masses," what

- 1 do you mean by that?
- 2 A A particle.
- Q Okay.
- 4 A That contains these numerous fibers that
- 5 are intergrown and intertwined.
- 6 Q By the way, just so -- because I know
- 7 this will go in a record, when I'm all done, I'll
- 8 let you check my work, okay? So we...
- Now, you say "anomalous optical
- 10 properties."
- 11 A Yes.
- 12 Q What do you mean by that?
- 13 A Well, there are a number. The
- 14 interference --
- 15 Q This is required?
- 16 A I have -- I don't think I can think of
- 17 an instance where I have looked at asbestos and
- 18 not seen anomalous optical properties.
- 19 Q So your -- do you require it or don't
- 20 require it?
- 21 A I expect it.
- 22 Q You expect it but not required.
- 23 A I expect it.
- Q It's kind of like dealing with your
- 25 kids.

- 1 A As I said before, I have never seen --
- 2 Q Okay. So --
- 3 A -- populations of asbestos in which the
- 4 optical properties --
- 5 Q So I should say expected but not
- 6 required?
- 7 A I have never seen a population where the
- 8 properties of asbestos -- where the properties are
- 9 not anomalous.
- 10 Q Okay. What --
- 11 A Should we go through what optical
- 12 properties are?
- 13 O Yeah, I'm going to do that.
- 14 A All right.
- 15 Q I'm just -- first, I want to understand
- whether it's, in your definition, required.
- 17 That's all. If it's expected but not required,
- 18 I'll write that. But I just want to make sure I
- 19 have it down.
- 20 A And I'd say again, I've never seen
- 21 samples that don't have it.
- Q So do you require it?
- 23 A Well, you know, I guess, so maybe I
- 24 would. Although I have to say that if I see fiber
- bundles and so forth, I may not check the -- this

- 1 optical properties because I know they'll be
- 2 anomalous.
- Q Okay. So what do I write?
- 4 A I don't know.
- Okay. You don't want me to put a
- 6 question mark.
- 7 A I -- I tried to explain to you as best I
- 8 can.
- 9 Q All right, I'll put a question mark.
- 10 Expected but not always checked for?
- 11 A But not -- well, this is complicated.
- 12 I'm trying to think back. It's been a
- long time since I've analyzed any asbestos. The
- 14 optical properties are anomalous in asbestos. So
- under PLM, I would look for them.
- 16 Q So --
- 17 A If they're not there, I think I would
- 18 not necessarily assume it was asbestos. So let's
- 19 put it required.
- Q Required.
- 21 A Required.
- Q I'll tell you what, you have until the
- end of lunch to change your mind. How's that?
- 24 A All right.
- Q Okay. Tell me what an anomalous optical

- 1 property is.
- 2 A All right. For every mineral, there's a
- 3 set of properties that can be evaluated by
- 4 polarized light microscopy. Would you like me to
- 5 give you a list?
- 6 Q Well, just give me an example -- oh,
- you're going to give me a list for every mineral?
- 8 A No. No. There's a set of
- 9 measurements --
- 10 Q Okay.
- 11 A -- that are called optical properties.
- 12 Q Give it to me.
- 13 A All right. The angle of extinction.
- 14 The sign of elongation.
- 15 Q Hold on.
- 16 A All right, I'll go slower.
- 17 Q You are just playing with me now. Okay.
- Okay. What is it?
- 19 A Sign of elongation.
- Q = Mm-hmm.
- 21 A Size of 2V.
- Q Size of 2V?
- A 2V. Two, capital V.
- Q Okay. Okay.
- 25 A The optic sign.

```
1
                Okay.
           Q
 2
           Α
                Birefringence. Position of the optic
    plane.
 3
 4
                Don't get impatient. I'm writing as
    fast I can. I feel like you're getting a little
 5
     impatient.
 6
 7
                MR. FROST: Objection to form.
 8
                MR. PLACITELLA: You won't be the first
9
    person that got impatient.
10
    BY MR. PLACITELLA:
                Okay.
11
           Q
12
                Indices -- principal indices of
           Α
13
    refraction.
14
                Pleochroism.
15
                Oh, come on.
           0
16
           Α
                P-L --
17
                P-L --
           Q
18
                -- E-O --
           Α
19
                -- E-O --
           Q
20
                -- C-H --
           Α
21
                -- C-H --
           Q
22
           Α
                -- R --
23
                Uh-huh.
           0
24
           Α
                -- O-I-S-M.
25
                Dispersion of the optic axis.
```

- 1 Q Mm-hmm.
- 2 A Could you put it so I could see?
- Q Oh, sorry.
- 4 A Let me just make sure I haven't
- 5 forgotten anything.
- 6 Q Sorry.
- 7 A I think -- I think that's --
- 8 Q You know what, I'll let you look at it
- 9 at lunchtime.
- 10 A I think that's it.
- 11 Q Okay. All right. Now --
- 12 A Oh, one more.
- Oh, I have that, sign of extinction.
- 14 Sorry.
- Okay. So I want to talk about the
- 16 aspect ratio.
- 17 A Okay.
- Q Okay. Does your position as it relates
- 19 to the aspect ratio conflict with OSHA's position?
- MR. FROST: Objection to form.
- 21 THE WITNESS: OSHA has criteria for
- 22 counting asbestos fiber that do not conform to
- 23 20-to-1. But I am not saying that you must have
- 24 20-to-1, only that they are abundant.
- 25 BY MR. PLACITELLA:

- 1 Q So -- but under OSHA's definition, you
- 2 could have abundant at 3-to-1, and that would
- 3 satisfy their definition, correct --
- 4 MR. FROST: Object.
- 5 BY MR. PLACITELLA:
- 6 Q -- but not yours?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: That satisfies their
- 9 counting criterion, yes, in occupational
- monitoring.
- 11 BY MR. PLACITELLA:
- 12 Q But it wouldn't satisfy your criteria
- 13 for determining that you were looking at an
- 14 asbestiform fiber?
- MR. FROST: Objection to form. We're
- 16 talking about two very different things here.
- 17 THE WITNESS: OSHA's definition applies
- to occupational monitoring, and in that context,
- they determined that they were going to count for
- 20 exposure assessments in environments where
- 21 asbestos is known to occur, particles that are
- 3-to-1. That's what they -- longer than 5.
- 23 BY MR. PLACITELLA:
- O Mm-hmm.
- 25 A That -- that is the way they approach

- 1 the analysis of the abundance of asbestos. I have
- 2 never considered it to be a definition for
- 3 "asbestos."
- 4 Q Okay. But when you're counting, you
- 5 require seeing an abundance of particles greater
- 6 than 20-to-1 aspect ratio, correct?
- 7 A I don't count.
- 8 MR. FROST: Objection to form.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. You don't count.
- 11 A I don't count.
- 12 Q Okay. What do you do?
- 13 A I look in a -- the discussion we
- 14 began --
- 15 O Yes, ma'am.
- 16 A -- was if I have a sample and I want --
- of material, minerals --
- O Mm-hmm.
- 19 A -- and I want to know if the sample is
- 20 asbestos or isn't it --
- Q Mm-hmm.
- 22 A -- then I look for these characteristics
- as a group to determine whether or not it's
- 24 asbestos or asbestos is present.
- Q Okay. So I looked at the -- and I want

- 1 to go over it with you -- I looked at NIOSH's own
- 2 report, and it looked to me that if you used a
- 3 20-to-1 aspect ratio, you would miss most
- 4 tremolite asbestos.
- 5 MR. FROST: Objection to form.
- 6 BY MR. PLACITELLA:
- 7 Q Is that fair?
- A I really don't know what you're
- 9 referring to. I'm sorry.
- 10 Q Okay. I'll go back to 30 after lunch.
- 11 You did a paper -- I'm missing a whole
- 12 folder.
- MR. PLACITELLA: Can you go to the --
- 14 THE VIDEOGRAPHER: iPad?
- MR. PLACITELLA: -- iPad, please.
- THE VIDEOGRAPHER: Yes, sir.
- 17 BY MR. PLACITELLA:
- 18 Q So I have a paper here by you entitled
- 19 "Membrane Filter Method for Estimating Asbestos
- 20 Fiber Exposure." Do you see that?
- 21 A Yes.
- Q Okay. Do you recall that paper?
- 23 A Yes.
- Q Okay. I'll blow up the pieces I want to
- 25 ask you about. And --

- 1 MR. FROST: I was going to say, if you
- want, Dr. Wylie, we can pull -- we can try to find
- a copy of it somewhere if you want to look at the
- 4 whole document.
- 5 THE WITNESS: Perhaps we could see what
- 6 questions he has, and if I need to look at the
- 7 document, I can do that then.
- 8 BY MR. PLACITELLA:
- 9 Q You have a table in your article
- 10 entitled "The length, width and aspect ratio for
- 11 some selected asbestos samples."
- 12 A Yes.
- 13 O Do you see that?
- 14 A Yes, mm-hmm.
- Q And one of the minerals that you analyze
- 16 was amosite, correct?
- 17 A These are not my data.
- 18 Q It's in your article.
- 19 A Yes, but they're all referenced.
- They're from other sources. I've never done lung
- tissue analysis. These are not my data. They're
- 22 literature data.
- Q Okay. Well, let's just go through it.
- 24 A Sure.
- 25 Q These are data you relied upon in

publishing your paper, though. 1 2. Α These are data I published. 3 0 Okay. And --4 Α I referenced. Right. And you have data here on 5 0 6 amosite, correct? 7 Α Yes. That by any definition is "asbestos," 8 0 9 right? 10 Α Yes. 11 Q Okay. So then you -- in this data you 12 have not just lung tissue but an analysis of bulk samples and samples, you know, that came out of 13 14 the mine, correct? 15 Α The --16 It says "bagging" --0 17 Yes, these are data. They're from Α 18 Pooley and Clark or Gibson, Wang. I'm not sure --19 I can't remember where they came from, but, yes, 20 they -- they did lung tissue, air -- air analysis. 21 Okay. Q 22 Α Yes, yes, mm-hmm. 23 0 Okay. So if I go to the aspect ratio for this data -- so, for example, I go to the 24

aspect ratio for bagging.

25

- 1 Α Yes. 2 0 Do you see that? 3 Α Yes, mm-hmm. 4 That's this (indicating). 5 says that 32 percent is greater than 17-to-1. 6 Α Yes, it says, yes. 7 Okay. So that meant that -- what 8 percent was less than 17-to-1? 9 Α A math test. 10 MR. FROST: Objection to form. 11 THE WITNESS: Less than or equal, I 12 would quess --13 BY MR. PLACITELLA: 14 Less than or equal. 0 15 Α -- 68. 16 So 68 percent of the amosite asbestos 17 under your definition would not be counted? 18 MR. FROST: Objection to form. 19 Misstates the document and what she's been 20 testifying to today. 21
 - MR. PLACITELLA: Please, only form.
 - 22 Please. Don't do that.
 - 23 MR. FROST: And that's why I said I
 - 24 would really like her to have a copy of the
 - 25 article in front of her because you keep blowing

- 1 up portions of it so we can't see what the
- 2 actual chart says, and then you're asking her
- ³ questions.
- 4 MR. PLACITELLA: No, I want to -- here,
- 5 here's the whole chart. Hold on. I'll blow up
- 6 the whole chart.
- 7 THE WITNESS: I -- I understand the
- 8 question. I feel all right in answering it.
- 9 BY MR. PLACITELLA:
- 10 Q Okay. So my question is, that 68
- 11 percent of the asbestos in this chart for this
- 12 sample is less than 20-to-1, correct?
- 13 A Yes, could you remove the -- what you
- just put up and let me look at the full dataset?
- 15 Q Sure.
- 16 A You see, it says mean length, 2.53. It
- 17 also says it was done by TEM, and it also says
- it's an air sample. We've been talking about
- 19 polarized light microscopy and bulk sample
- 20 analysis and particles that are longer than 5
- 21 micrometers. So this is not relevant to our
- 22 conversation.
- Q Well, in your article you're counting as
- 24 asbestos 68 percent of a sample less than a
- 25 20-to-1 aspect ratio, correct?

- 1 A I don't apply those definitions to air
- 2 samples. We're talking about bulk sample analysis
- 3 by polarized light microscopy.
- 4 Q Okay.
- 5 A This is entirely a different kettle of
- 6 fish. It's a different method of analysis and
- ⁷ there are different criteria.
- 8 We were talking about polarized light
- 9 microscopy. All of these are air data, lung data.
- 10 Q Well, actually not, it doesn't say air
- 11 data. You see where it says, "Mine TEM"?
- 12 A Yes, but I know that it's air data.
- 13 Q How do you know?
- 14 A Because I know where it came from.
- Okay. So if it's air data, then your
- 16 criteria don't apply?
- 17 A The criteria that we were discussing
- apply to polarized light microscopy examination of
- bulk materials. You've switched topic and taking
- 20 me to TEM analysis of air samples, and they are
- 21 not comparable. And there's no limit on the
- width, so that that is also not comparable.
- Q Okay. So everything you said in this
- entire pad that we just went through only applies
- if you're taking a bulk sample using PLM?

- 1 A That's correct. That's what we were
- ² discussing.
- Q Okay. So your -- your opinion is not,
- 4 for example, that if you use TEM, and you look at
- 5 a sample, that you need a 20-to-1 aspect ratio in
- 6 order to call something asbestos?
- 7 MR. FROST: Objection to form.
- 8 BY MR. PLACITELLA:
- 9 Q Correct?
- 10 A Correct.
- 11 Q Okay. I want to talk to you now about
- 12 fiber width. Because maybe we're just -- maybe I
- was a little confused, and you're straightening me
- 14 out. Okay?
- 15 A Good.
- Q Okay. Am I correct that under your
- definition, under PLM, that any fiber bundle
- greater than 5 microns, you do not count?
- MR. FROST: Objection to form.
- THE WITNESS: I don't count. Any fiber
- 21 bundle I would assume would be evidence for the
- 22 presence of asbestos, provided the fibrils were
- 23 small.
- 24 BY MR. PLACITELLA:
- Q Okay. So -- why don't we -- wait, let

- 1 me get your -- I'm glad we wrote all this down.
- 2 So you said here -- maybe I should
- 3 have -- "composed of fibrils of narrow width less
- 4 than 0.5." Correct?
- 5 A By PLM, yes.
- 6 Q By PLM. And if you look at it and it's
- 7 greater than 0.5, then it doesn't satisfy your
- 8 definition?
- 9 MR. FROST: Objection to form.
- 10 BY MR. PLACITELLA:
- 11 Q Even if -- even if it's in a bundle?
- MR. FROST: Objection to form.
- 13 BY MR. PLACITELLA:
- Q Well, this is what I'm trying to
- understand. Okay?
- 16 A Well, try again.
- 17 Q And you have to bear with me.
- 18 A Yeah, that's fine.
- 19 Q Okay?
- You're saying that it has to be composed
- of fibrils of narrow width?
- 22 A That's correct.
- Q When you look at something under PLM,
- you can't always tell if it -- if it's fibrils
- composed of fibrils under 0.5 if there are

- 1 multiple fibrils making a bundle, correct?
- 2 A If they are less than 0.5, the -- the
- 3 result is an anomalous optical property.
- 4 Q Mm-hmm. But if it's above 0.5, then
- 5 you -- then you don't consider that asbestos?
- 6 MR. FROST: Objection to form.
- 7 BY MR. PLACITELLA:
- Q If you see it under a microscope.
- 9 A Again, I don't look at a particle-by-
- 10 particle basis. It's not an appropriate approach.
- 11 Q Okay. So maybe we have to -- it says
- here, "Composed of fibrils of narrow width." So
- 13 how many fibrils do we need?
- 14 A Well, when you have -- I'm talking about
- 15 bundles. So you --
- 16 Q You said here "composed of fibrils."
- 17 A -- -brils, yes. Bundles are composed of
- 18 fibrils --
- 19 Q Correct.
- 20 A -- in asbestos --
- Q Correct.
- 22 A -- of narrow width. Yes.
- Q Correct. So composed of fibrils --
- 24 A -- -brils.
- Q -- of narrow width?

- 1 A Yes.
- Q Okay. How do you make that
- 3 determination?
- 4 A The properties become anomalous.
- 5 Q Okay. So if you look at it and you see
- 6 something above 0.5, what does that tell you?
- 7 A It tells me there's a particle above 0.5
- 8 in -- on the slide.
- 9 Q But you can't tell whether that's
- 10 asbestos?
- MR. FROST: Objection to form.
- 12 THE WITNESS: Again, I don't identify
- particle by particle. If you get a sample and
- 14 it's labeled "asbestos," and you look at it under
- the microscope, sometimes you might find a
- 16 particle. Some of the samples may have
- 17 contaminants of rock fragment from the area in
- which it was mined. Some of them are composite.
- I can't really say what's not; I'm
- looking for what is. So it's the presence that's
- 21 being verified, not the absence.
- 22 BY MR. PLACITELLA:
- Q Well, how many fibrils do we need to
- look at, do we need to see --
- MR. FROST: Objection to form.

- 1 BY MR. PLACITELLA:
- 2 Q -- in order to conclude that it's
- 3 asbestos.
- 4 A I need to see a fiber bundle of material
- 5 that's smaller than 0.5 micrometers.
- 6 Q So you -- oh, so now -- now at least I
- 7 think I understand.
- 8 So when you say "composed of fibrils of
- 9 narrow width" --
- 10 A Normally less than 0.5 I think is one of
- 11 the values. The word "normally." So...
- 12 Q That really should be composed of fiber
- bundles less than 0.5.
- 14 A No, I think that --
- MR. FROST: Objection to form.
- 16 THE WITNESS: -- fiber bundle is what's
- 17 composed. That's where I think we're think- -- we
- were talking. We were talking about fiber
- bundles, and you asked me what they were, and I
- 20 said they were composed of fibrils of narrow
- 21 width. That's what fiber bundles are.
- 22 BY MR. PLACITELLA:
- 23 O Okay.
- 24 A I believe that's the reason why it's
- written in this way.

- Q Okay. So maybe I have to rewrite it.
- 2 A I don't know. I --
- 3 Q So you're looking under a PLM
- 4 microscope.
- 5 A Yes.
- 6 Q And you see a mineral.
- 7 A Yes.
- 8 Q Okay. And how do you determine whether
- 9 that's a fibril or a bundle? How -- how do you
- 10 know?
- 11 A For most of what you see by polarized
- 12 light microscopy, they're bundles.
- Q So are you able then to go to --
- 14 A For asbestos.
- Okay. Are you then able to go to the
- individual fibrils and actually measure them?
- 17 A No.
- 18 Q So when you say "composed of fibrils
- less than 0.5," you really can't measure that.
- 20 A You can measure 0.5, and you can see
- that they are less, but you can't measure how much
- less or what they are.
- Q All right. So if you see -- but you
- can't always see the fibrils if they're in a
- 25 bundle. Correct?

- 1 A You can -- you know they're there
- because of the anomalous properties.
- Q Okay.
- 4 A Or the presence of the splayed ends. So
- 5 there -- there are a number of ways you can get at
- 6 it.
- 7 Q Okay. But how do you know when you're
- 8 looking at a bundle how many fibrils are in there?
- 9 A You don't.
- 10 O You can't?
- 11 A No.
- 12 Q Okay. So -- and when those bundles are
- 13 -- well, let me ask you this: Can you inhale
- 14 fiber bundles that are greater than 0.5?
- MR. FROST: Objection to form.
- 16 THE WITNESS: Are you asking me about
- the physiology of the lung?
- 18 BY MR. PLACITELLA:
- 19 Q Well, do you know?
- 20 A I -- I think you can, yes.
- 21 Q Okay. And if you have a fiber bundle
- that's greater than 0.5, does that have the
- 23 potential to split into thinner fiber bundles
- inside the body?
- 25 A Yes.

- 1 Q Okay. And so something could go into
- the body greater than 0.5, but when it's in the
- body, break down to something less than that.
- 4 MR. FROST: Objection --
- 5 BY MR. PLACITELLA:
- 6 O Fair?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: If -- you used the word
- 9 "something." I'm sorry, I -- I can't --
- 10 BY MR. PLACITELLA:
- 11 O An asbestos fiber bundle.
- 12 A And we're discussing asbestos, are we
- 13 not?
- Q Yes, ma'am.
- 15 A All right. So in the case of asbestos,
- 16 I think that that does definitely happen.
- Okay. Now, let's just talk about the --
- so I understand the capabilities here of PLM, what
- 19 is the capability of PLM in terms of looking at
- the width of a fibril? What's -- what's its limit
- of detection?
- MR. LOCKE: Objection.
- THE WITNESS: There is -- there are
- two -- there are two measures: One is resolution,
- and the other is visibility. And they're not the

- 1 same.
- 2 So the experiments -- and the visibility
- 3 can't really be pre- -- predicted because it
- 4 depends on the contrast and the index of
- 5 refraction of the material with the substance that
- 6 it's mounted in, and the higher that difference,
- 7 the more visible small particles might become.
- 8 So the literature of which I'm aware is
- 9 that visibility of -- for example, I think that --
- 10 I think it was crocidolite and -- crocidolite in
- 11 particular, visibility is about 0.15.
- 12 The resolution limit depends on the --
- the objective that you're using. Resolution is
- determined by the numerical aperture of the
- objective. And so that depends.
- I use a numerical aperture of 0.85. It
- 17 also depends upon the wavelength of light. And so
- 18 I consider probably something around 0.25 as
- 19 resolution, ability to resolve, but it might be
- 20 0.3 or 0.4.
- You know, resolution has a very
- 22 technical -- technical meaning. I'd have to
- 23 calculate it. I've sort of forgotten.
- 24 Wavelength, 0.61 --
- 25 BY MR. PLACITELLA:

```
1
                You want to --
           Q
 2
           Α
                -- divided by a numerical aperture.
 3
                I can calculate it.
 4
           Q
                Okay.
                Oh, I'm writing on your document.
 5
           Α
 6
           0
                That's okay.
 7
           Α
                Sorry.
 8
                So let me just spend a few --
           0
 9
                MR. PLACITELLA: What time do we have?
10
    We got another 15 minutes or do you want to stop
11
          You want to stop now? It's quarter to 1:00.
12
                MR. FROST: We may as well stop now and
13
    have lunch.
14
                MR. PLACITELLA: Okay. Okay.
15
                THE VIDEOGRAPHER:
                                   The time is 12:43
16
    p.m. We're going off the record.
17
                (Lunch recess.)
18
                (Wylie Exhibit No. AW-50 was
19
                marked for identification.)
20
                THE VIDEOGRAPHER: The time, it is
21
    1:43 p.m., and we are back on the record.
22
    BY MR. PLACITELLA:
23
                Okay. A few follow-up questions.
24
                We talked this morning about the 20-to-1
25
    aspect ratio that you required. Do you recall
```

- 1 that?
- 2 A Mean aspect ratio, yes.
- Q Mean aspect, okay. Is -- is that based
- 4 upon any geologic criteria?
- 5 A When it was first developed, we based it
- on just simply observations of many samples.
- 7 Q Is it --
- 8 A It's an empirical guide.
- 9 Q Is the 20-to-1 aspect ratio published in
- 10 any peer-reviewed journal other than a journal --
- an article that you authored?
- 12 A It's part of the EPA working definition.
- 13 It's published by the EPA.
- 14 Q But they just took it from you, right?
- 15 A I don't know that.
- MR. FROST: Objection to form.
- 17 BY MR. PLACITELLA:
- 18 Q So is there any peer-reviewed geological
- 19 reference that you have, other than the EPA, that
- supports that 20-to-1 is a -- based on a geologic
- 21 criteria?
- MR. FROST: Objection to form.
- THE WITNESS: I took -- to say "yes" or
- "no," the information out of the Bureau of Mines
- may well have included it. I'd have to review the

- 1 literature for that topic.
- 2 BY MR. PLACITELLA:
- 3 Q But as you sit here today, you can't
- 4 point to any peer-reviewed literature that adopts
- 5 the 21 -- 20-to-1 aspect ratio as a geologic
- 6 criteria, correct?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: As I said, I'd have to
- 9 review the literature from the Bureau of Mines
- 10 before I could say -- answer that question.
- 11 BY MR. PLACITELLA:
- 12 Q Right, that's what I'm saying.
- But as you sit here today, you can't
- 14 point to any peer-reviewed article, as you sit
- here today, that adopts your 20-to-1 criteria as a
- 16 geologic definition, correct?
- MR. FROST: Object -- objection.
- 18 THE WITNESS: You know, the -- I think
- 19 the answer must be is it's -- I don't have
- 20 citations in my head for that.
- 21 BY MR. PLACITELLA:
- Q Well, do you have any authors --
- 23 A I believe that --
- Q -- other than people who publish with
- 25 you?

- 1 A Oh.
- MR. FROST: Objection.
- THE WITNESS: Again, I'd have to review
- 4 the literature from the Bureau of Mines.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. But as you sit here today,
- 7 perhaps with the exception of something in the
- 8 Bureau of Mines literature, you can't point to any
- 9 peer-reviewed article or reference that adopts
- 10 your 20-to-1 criteria as a geologic criteria.
- 11 Correct?
- MR. FROST: Objection.
- THE WITNESS: As long as we exclude the
- 14 Bureau of Mines, I can't think of anything.
- 15 BY MR. PLACITELLA:
- 16 Q Okay.
- 17 A But I, you know, can't say it doesn't
- 18 exist.
- 19 Q And you don't know for sure about the
- 20 Bureau of Mines.
- 21 A I can't -- I think it's there, but --
- that's kind of my memory, but I really would have
- to look through the literature.
- Q Okay. When you did your searches --
- your research for today, you limited your searches

- 1 to what you term "geologic literature." You did
- 2 not look at medical lecture -- medical literature,
- 3 correct?
- 4 A No. No.
- O Okay. Now --
- 6 A There is an article cited included in my
- 7 list, which I did not actually end up using,
- 8 that's medical. So I have to say that.
- 9 Q Okay. Now, in this AW-30, which is your
- 10 pad or our pad --
- 11 A Your pad.
- got the text right?
- 14 A I will look at it.
- 15 Q Okay. And AW-30 -- or 50, I'm sorry,
- 16 the criteria in here is premised on using PLM as
- the instrument, correct?
- 18 A That's correct.
- 19 Q Okay. And the opinions in your report
- are premised on using PLM as an -- as a -- as the
- 21 method, correct?
- 22 A Hmm. You -- are you asking me if I only
- looked at the PLM component of the Longo reports?
- 24 Are you asking me that question?
- Q Well, how about that question.

- 1 A No, it's not restricted to that.
- Q Okay. So you looked at the TEM
- 3 component as well?
- 4 A I did.
- Okay. Now -- sorry. Give me a second.
- The PLM method, is that the same method
- 7 that was recommended by -- that was used by the
- 8 EPA?
- 9 A I'm sorry. The PLM method, which one
- 10 are we speaking about?
- 11 Q All right. Is there more than one PLM
- method for testing for asbestos in materials?
- 13 A By polarized light microscopy?
- O Mm-hmm.
- 15 A Okay. The PLM method that is actually
- written as a method, the -- by polarized light,
- 17 the EPA is certainly the most recent -- the most
- 18 recent.
- 19 Q Okay. And that's what most laboratories
- 20 rely upon?
- 21 A I don't -- I can't answer that question.
- Q Okay. That's for -- that was written
- for the analysis of bulk materials, correct?
- 24 A That's correct.
- Q It was actually written for the analysis

- of bulk insulation materials, correct?

 A Probably.
- Q Right. It -- it was not written for and
- 4 is inappropriate for analyzing other mineral
- 5 products, correct?
- 6 A No.
- 7 MR. FROST: Objection to form.
- 8 BY MR. PLACITELLA:
- 9 Q No what?
- 10 A I don't think it's inappropriate.
- 11 Q Do you believe it's appropriate to use
- 12 PLM for analysis beyond bulk insulation materials?
- 13 A Yes.
- 14 (Wylie Exhibit No. AW-17 was
- marked for identification.)
- 16 BY MR. PLACITELLA:
- 17 Q I just handed you AW-17. If we can go
- 18 to the -- okay.
- This is a letter written by you to the
- 20 University of Maryland. Do you see that?
- MR. FROST: Objection to form.
- 22 BY MR. PLACITELLA:
- Q On the University of Maryland letterhead
- to the Massachusetts Department of Health written
- 25 by you, correct?

1 Yes, um-hmm. Α 2. Okay. And it was written in 1986? Q 3 Α Yes. 4 Q Correct? 5 Α Yes. 6 Q And can you go to the last paragraph. 7 At the end of the document? Α 8 Yes, ma'am -- yes, Doctor. 0 9 Yes. Α 10 You write in this paragraph: "I would 0 11 like to make one final point. The PLM method 12 recommended by EPA and published by them, which 13 most laboratories are relying upon -- relying on 14 for the analysis of play sand, was written for 15 analysis of bulk insulation materials found in 16 buildings. It is inappropriate for the analysis 17 of sand, crushed stone, or other mineral 18 products." 19 Do you see that? 20 Α Yes. 21 It says: "The reasons are many. 22 Fundamental to this discussion, however, is the 23 fact that if amphiboles are found in insulation, 24 they are most likely to be asbestos. Asbestos 25 fibers have many unique properties which made them

- 1 ideal for insulation. Cleavage fragments lack
- these properties. However, when amphiboles are
- found in crushed rock, they are not likely to be
- 4 asbestos, and criteria to discriminate between
- 5 asbestos and non-asbestos must be applied,
- 6 discriminators that are not usually necessarily --
- 7 necessary when dealing with insulation and which
- 8 are not included in the EPA's interim method."
- 9 Did I read that correctly?
- 10 A That's correct.
- 11 Q Okay. Now, in preparing for today's
- deposition, how much time did you spend?
- 13 A Close to a hundred hours.
- 14 Q And how did you spend that hundred
- 15 hours?
- 16 A Researching and writing the report. And
- 17 reviewing --
- 18 Q I asked about preparing for the
- deposition.
- 20 A Oh, I'm sorry. I'm sorry. I
- 21 misunderstood.
- 22 O Sure.
- 23 A Yesterday and the day before.
- Q Okay. And did -- did you do that with
- someone?

- 1 With Mr. Frost and Mr. Ewald. Α 2 Okay. And --0 3 Α I think one more person. 4 And then before that, you spent about a 5 hundred hours on your report? 6 Α Approximately. 7 MR. FROST: Objection to form. 8 BY MR. PLACITELLA: 9 And what was your compensation per hour? Q 10 Α \$350 per hour. 11 Times a hundred hours? 0 12 Α That's correct. 13 Is that what you billed them for? 0 14 I haven't billed them, but that -- I Α 15 will bill them at that rate. 16 Okay. And did you do any research as it 17 relates to the supply of talc from China? 18 Α No. 19 Q Okay. 20 Let me -- let me qualify. I have not Α 21 been able to find in the literature much on China, 22 so...
- Q Okay. When -- you were part of the
- 24 IARC '93 Working Group. Is that fair?
- 25 A '93?

```
1
                Yeah.
           Q
 2
           Α
                No.
 3
           0
                You weren't? Were you part of the IARC
 4
    Working Group around 2010?
 5
           Α
                2006.
 6
           0
                2006.
 7
           Α
                Yes.
 8
                And at any point in time when you were
           0
 9
    working in the working group, were you required to
10
    disclose your prior or current work for industry
11
    at the time?
12
           Α
                I can't recollect.
13
                Do you know whether you ever disclosed
14
    to the IARC your work with industry?
15
                MR. FROST: Objection to form.
16
                THE WITNESS: I -- I don't recollect. I
17
    think they required -- I'm trying to go back.
18
    They must have asked for something. I can't
19
    remember truthfully. I believe -- yes, let me go
20
    back. I think it talked about within the last
21
    three years or two years or something like that.
22
    They did have some kind of statement about that,
23
    which I would -- would have filled out.
24
                (Wylie Exhibit AW-16 was marked
25
                for identification.)
```

- 1 BY MR. PLACITELLA:
- Q Okay. Now -- give me a second.
- There you go. I put up on the -- or I'm
- 4 putting up on the screen a letter written to you
- 5 in 1987 by Johnson & Johnson. That's you, Ann --
- 6 Ann W. Wylie, Professor, correct?
- 7 A Yes.
- 8 Q Okay. And it is written by a
- 9 Mr. Ashton. Do you see that?
- 10 A Yes, I do.
- 11 Q Okay. And it actually copies the
- 12 medical director for Johnson & Johnson. You don't
- 13 know that?
- 14 A No.
- 0 Okay. And it -- I asked you before
- whether you had done any work on -- with ASTM
- for -- prior to three years ago, and you told me
- 18 no, and you told me you knew nothing about any
- 19 work with Ashton or Johnson & Johnson.
- Do you recall that?
- 21 A I do.
- Q Okay. Now, here Ashton writes to you
- and talks about the work you were doing on the
- 24 ASTM committee concerning polarized light
- 25 microscopy, correct?

- MR. FROST: Objection to form, misstates
- 2 the document.
- THE WITNESS: I was not a member of ASTM
- 4 D22.
- 5 BY MR. PLACITELLA:
- 6 Q But you were working with ASTM and you
- were working with Johnson & Johnson, according to
- 8 this, correct?
- 9 MR. FROST: Objection to form, misstates
- 10 the document.
- 11 THE WITNESS: I had -- I have no
- 12 recollection that I got this letter from Johnson &
- 13 Johnson when I replied that I had never worked for
- 14 them. I just have no recollection.
- 15 BY MR. PLACITELLA:
- Q Well, this is about --
- 17 A And I wasn't working for them.
- 18 Q But you were working in conjunction with
- 19 ASTM in 1987 and interacting with Johnson &
- Johnson, correct?
- MR. FROST: Objection to form.
- THE WITNESS: I wasn't a member of ASTM.
- 23 ASTM asked me to develop a polarized light
- microscopy method for asbestos, and I did work on
- 25 that. And I -- I would have said so, but the form

- of your question earlier didn't -- it didn't
- 2 suggest to me that you were interested in this,
- 3 because I wasn't a member of ASTM.
- 4 So ASTM wanted a method. They asked if
- 5 I would develop one, and I tried. It was never
- 6 published. It never made it out of what they
- 7 called then the gray sheets, and so it was -- it
- 8 never led to anything in particular.
- 9 BY MR. PLACITELLA:
- 10 Q Well, when did you first start working
- 11 with the ASTM, even if you weren't a member?
- 12 A Oh, I --
- MR. FROST: Objection to form.
- 14 THE WITNESS: I only did this, whenever
- this was, '87. Probably I worked on that document
- maybe for a year, six months or a year.
- 17 BY MR. PLACITELLA:
- 18 O Okay.
- 19 A As I said, it never went anywhere.
- 20 So...
- Q And so you did work with Johnson &
- Johnson on -- in conjunction with the -- with the
- 23 ASTM in terms of standards for testing for
- 24 asbestos, right?
- MR. FROST: Objection to form.

- THE WITNESS: I did not work with
- Johnson & Johnson. This Mr. Ashton may have been
- a member of D22. I don't know. And perhaps he
- 4 read the draft document and wrote me this letter.
- 5 I have no recollection of knowing Mr. Ashton, and
- 6 I never worked with Johnson & Johnson.
- 7 BY MR. PLACITELLA:
- 8 Q Well -- let's just go through it.
- 9 A Sure.
- 10 Q He states in this letter to you: "At a
- 11 previous meeting, Mike Beard of Triangle Park
- 12 EPA" -- do you know who he is?
- 13 A I do.
- 14 Q -- "appointed Slim Thompson and me to be
- 15 talc industry specialists on the PLM for ASTM
- 16 committee."
- Do you see -- see that?
- 18 A I do.
- 19 Q And you know who Slim Thompson is,
- 20 right?
- 21 A I do.
- Q He worked for who, R.T. Vanderbilt?
- 23 A That's correct.
- Q And did you work with Slim Thompson from
- 25 R.T. Vanderbilt on the ASTM specifications?

- 1 MR. FROST: Objection to form.
- THE WITNESS: He was, as this letter
- 3 states, their representative. So perhaps he made
- 4 comments to me about the method.
- 5 BY MR. PLACITELLA:
- 6 Q So you did work with him?
- 7 MR. FROST: Objection to form.
- 8 Misstates testimony.
- 9 THE WITNESS: "Work with him." I mean,
- 10 you know, if you -- if you want to say that when I
- 11 was developing this method, I worked with the ASTM
- 12 D22 committee, then I would say that would be
- 13 correct. They asked me to develop it. And as you
- 14 can see, the ASTM committee is preparing my
- method. Not me. They were preparing my method.
- 16 BY MR. PLACITELLA:
- 17 Q Yeah, so all I'm saying is, so you
- worked with members of the talc industry through
- 19 the ASTM committee on a method for testing
- asbestos in talc, correct?
- MR. FROST: Objection to form, misstates
- 22 testimony.
- THE WITNESS: They -- there -- there
- were -- obviously from -- Slim Thompson was from
- the talc industry, and this Mr. Ashton appears to

- 1 have been. And there were -- ASTM D22 is a very
- 2 large committee. So there were -- may have been
- other members from the talc industry or other
- 4 industries on this committee.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. And --
- 7 A So I worked with that committee. So if
- 8 that is responsive to your answer, I worked with
- 9 that committee.
- 10 Q Okay. And members of that committee,
- including Mr. Ashton and Mr. Thompson, made
- 12 suggestions to you concerning what definitions you
- 13 should use in your methods. Correct?
- 14 A This --
- MR. FROST: Objection to form.
- 16 THE WITNESS: This letter states that
- 17 they would -- wanted me to use definitions that
- 18 conformed to previous ASTM standards.
- 19 BY MR. PLACITELLA:
- Q Right. And did you do that?
- 21 A I don't remember. The -- it may be
- that's the reason that this method never was
- approved by ASTM. I don't know.
- Q So when did your involvement stop with
- the ASTM committee that was responsible for coming

- 1 up with standards for testing for asbestos?
- 2 A The method that -- that I drafted went
- into the ASTM bureaucracy, and it came back to me
- 4 maybe once or twice. I -- my memory is a
- 5 little -- and then I never heard from them again.
- 6 Q And until the last three or four years?
- 7 A Well, I joined ASTM D22 about three
- 9 years ago.
- 9 Q Okay. And did you come up with a method
- that was adopted by D22 within the last three
- 11 years?
- 12 A No.
- 13 Q Now -- oh, sorry. Give me a second.
- 14 (Counsel conferring.)
- MR. PLACITELLA: So somebody was -- did
- she come back with a copy yet?
- 17 (Wylie Exhibit AW-40 was marked
- for identification.)
- 19 BY MR. PLACITELLA:
- Q I'm only going to focus on a paragraph.
- 21 I have up here a one-page report that you did for
- 22 -- in 1985 for R.T. Vanderbilt. And I have it
- 23 identified as AW-40.
- 24 A Yes.
- Q And it was a report that you did on

```
Do you see that?
 1
    Nytal 99.
 2.
           Α
                Yes.
 3
           0
                And that was done for the same
 4
    Mr. Thompson, Slim Thompson?
 5
                MR. FROST: Objection to form.
 6
    BY MR. PLACITELLA:
 7
           Q
                Correct?
 8
                He sent me the samples.
           Α
 9
                Right.
           0
10
           Α
                Yes.
                And I'm just focus -- I'm just looking
11
           0
12
    at methodology. I'm looking at your middle
13
    paragraph of this report.
14
                You say: "Asbestos fiber populations
15
    are composed of either chrysotile or a member of
16
    the amphibole family that occur as a -- as
17
    particulates that display some or all of the
18
    following characteristics."
19
                And you say: "Fiber bundles with
20
    splayed ends, curved fibers, aspect ratios in
21
    excess of 20-to-1, and widths less than 1
22
    micrometer for fibers longer than 5 micrometers,
23
    and matted masses of individual fibers."
24
                Do you see that?
25
           Α
                Yes.
```

- 1 Q Now, in this methodology you indicate
- the width can't be less than 1 micrometer,
- 3 correct?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: That the widths can be
- 6 less than 1 micro- -- is that what you said?
- 7 BY MR. PLACITELLA:
- 8 Q It says "widths less than." In other
- 9 words, that's what you're requiring, widths less
- 10 than 1 micrometer --
- 11 A Yes.
- 12 Q -- for fibers longer than 5 micrometer.
- 13 A That's what it says.
- 14 Q That's different than what's in AW-50,
- 15 correct?
- MR. FROST: Objection to form, misstates
- 17 the document.
- MR. PLACITELLA: Please don't do that.
- 19 Please don't do that.
- THE WITNESS: Yes.
- 21 BY MR. PLACITELLA:
- Q Okay. Why is it different?
- 23 A Well, they -- 1 micrometer was -- after
- 24 a lot of study, this was in '86, I felt was not
- appropriate for fiber bundles, the fibrils in the

- 1 bundles. And so -- and then this actually says
- 2 that the fiber bundles have widths less than
- 3 1 micrometer. That's what it says.
- 4 Q Right. Well, this is different. Why is
- 5 it different?
- 6 A Well, fiber bundles -- this says fiber
- ⁷ bundles. This -- this -- what's written here and
- 8 what's written there are not the same thing. You
- 9 asked me what were the properties of the
- 10 materials, the fibrils that formed the fiber
- 11 bundles. This just says bundles with splayed
- ends, curved fibers and -- you know, any particle
- with widths less than 1 micrometer.
- So we're really talking about the
- population as a whole, and in that conversation
- 16 you and I were having earlier, we were talking
- about the size of particles in fiber bundles.
- 18 And over time, I stopped using
- 19 1 micrometer because I thought that it was
- 20 confusing. There's no asbestos that I know that
- 21 curves in fiber bundles where the fibrils are
- 22 1 micrometer.
- Q When did you stop using that?
- 24 A I don't know.
- And what year was this? In 1985?

1 Correct. Q 2. I -- I'm sorry, I don't remember. Α 3 it wasn't probably much longer after that, as the 4 work I was doing was progressing and I had looked 5 at more samples and things like that. 6 Q Okay. 7 Fibrils of asbestos have to be less than 8 1 micrometer, which is what our earlier conversation directed at. 9 10 This AW-50 --0 11 Α Yes. -- what's in here, is this, as you've 12 Q 13 articulated here, adopted in any peer-reviewed 14 geologic literature other than that authored by 15 yourself? 16 MR. FROST: Objection to form. 17 THE WITNESS: It's close to the EPA 18 document --BY MR. PLACITELLA: 19 20 0 Oh, but --21 -- published in '93. Α 22 What I'm asking you is the criteria that 23 forms the basis --24 Α Yes.

-- of your opinion here --

0

25

- 1 A Yes.
- Q -- that's in AW-50, is that -- does that
- 3 appear in any peer-reviewed geologic literature
- 4 other than literature authored by yourself?
- 5 A We discussed this earlier, I think, and
- 6 I said that there may be -- it may be in the
- ⁷ Bureau of Mines literature. I would have to do a
- 8 literature search to find that out. I actually
- 9 don't know. It may be in the Bureau of Mines
- 10 literature.
- 11 Q Actually, I was asking you different
- 12 questions.
- 13 A Oh.
- Q So -- but that's okay. So now I'm
- 15 asking you the methodology --
- 16 A Yes.
- 18 as reflected in AW-50, as you sit here, can you
- 19 point to any peer-reviewed geologic literature
- that adopts verbatim your methodology?
- MR. FROST: Objection to form.
- THE WITNESS: As I said, I -- I'd have
- 23 to review the literature before I could answer
- 24 that.
- 25 BY MR. PLACITELLA:

- 1 Q Okay.
- 2 A It's not really fair to ask me --
- 3 Q All right.
- 4 A -- about the whole world of literature
- 5 when -- on a topic I have not had a chance to
- 6 refresh myself on.
- 7 Q I know, but this --
- 8 A And I think we've gotten to the point
- 9 where I told you before that I am not aware at
- 10 this moment in time other than the EPA or the
- 11 Bureau of Mines directly.
- 12 Q Okay. Let's just break it down, because
- 13 I'm a little slow on the uptake.
- 14 Putting aside the Bureau of Mines and
- the EPA, which you're not sure of, correct?
- 16 A I'm sure of the EPA.
- 17 Q You're sure that the EPA adopts
- identically what's in AW-50?
- 19 A I'm sorry, but, you know, you're asking
- 20 me to verbatim say something about a word-for-word
- 21 definition, and I'm a writer, and I don't ever --
- I would never do this. I'd like to have a chance,
- as we have discussed, to correct what's written in
- 24 there to make sure --
- 25 O Okay. So --

- 1 A I am not going to say what you've
- written down there is appropriate.
- For example, I think you wrote
- 4 "20-to-1," and I said "mean aspect ratio."
- 5 O Well, you'll fix -- okay. We will stop.
- 6 A Yes.
- 7 Q Okay. We'll come back to it.
- 8 MR. PLACITELLA: Let me just go to a
- 9 different -- she's not back yet with the stuff?
- 10 Okay. Hold on.
- 11 (Counsel conferring.)
- 12 BY MR. PLACITELLA:
- 13 Q Just before I move to a different topic,
- 14 can we agree that asbestos in talc is not an
- 15 analysis of bulk material?
- MR. FROST: Objection to form.
- 17 BY MR. PLACITELLA:
- 18 Q When you're looking for asbestos in
- 19 talc, it's not an analysis of bulk material.
- MR. FROST: Same objection.
- THE WITNESS: I'm sorry. What do you
- think it's an analysis of?
- 23 BY MR. PLACITELLA:
- Q Well, when you're -- how do you know --
- I mean it's a mixture, right? It's not a bulk

- 1 material of one substance. Can we agree with
- 2 that?
- MR. FROST: Objection to form.
- 4 THE WITNESS: I'm sorry, I'm still not
- 5 understanding. Talc when -- you analyze talc by
- 6 polarized light microscopy, it's a bulk method.
- 7 BY MR. PLACITELLA:
- 8 O Okay. That's it.
- 9 A That's the question you asked, I
- 10 believe.
- 11 Q That's it. That's the only method it
- 12 is.
- MR. FROST: Objection to form.
- 14 BY MR. PLACITELLA:
- 15 Q It's just a bulk method for nothing
- 16 else.
- 17 A Polarized light microscopy is used for
- analysis of bulk samples. It's in that regard --
- 19 I mean, it's not useful for the analysis of air
- samples.
- Q Okay. And when getting to the aspect
- 22 ratio --
- 23 A Yes.
- Q -- of 20-to-1, using polarized light
- 25 microscopy --

- 1 A Yes.
- 2 Where is that published in the
- 3 medical literature -- I'm sorry, in the geologic
- 4 literature, other than your own publications?
- 5 A I -- you've asked me this question, and
- 6 I would have to search the literature to find out
- ⁷ if it were -- were adopted elsewhere. I actually
- 8 don't know.
- 9 Q Mm-hmm.
- 10 A And remember it's not aspect ratio
- 11 20-to-1, it's mean aspect ratio.
- 12 Q Mm-hmm. Is asbestos in bulk when it's
- 13 found in talc?
- MR. FROST: Objection to form.
- THE WITNESS: I -- I'm sorry, but that
- question doesn't actually make any sense. I'm not
- understanding.
- 18 If we're looking at a sample under
- 19 polarized light microscopy, that's a bulk sample.
- 20 BY MR. PLACITELLA:
- O Mm-hmm.
- 22 A It's a sample that is something you can
- hold in your hand. It's a bulk sample. It's not
- 24 an air sample. So the term "bulk sample" means
- any sample that's not an air sample.

```
1
                Okay.
           Q
 2.
           Α
                Okay? Or water sample.
 3
           0
                Okay.
 4
           Α
                Okay.
 5
                So this is what I guess I'm trying to
           0
 6
    understand.
 7
           Α
                Yes.
 8
                Based upon everything that we went
           0
 9
    through in -- and with -- with your right to
10
    revise it, okay?
11
                Mm-hmm.
           Α
12
                -- in AW-50, if I'm a scientist --
           Q
13
           Α
                Mm-hmm.
14
                -- a geologist --
           0
15
           Α
                Mm-hmm.
16
                -- and I'm not -- I'm not Ann Wylie, how
17
    do I duplicate what you do using this criteria?
18
    How do I look at the same sample that you do, and
19
    use your methodology and come up with a
20
    conclusion?
21
                MR. FROST: Objection to form.
22
    BY MR. PLACITELLA:
23
                And come to the same conclusion.
24
                Well, number one, you need to be trained
           Α
25
     in polarized light microscopy. I don't think you
```

- 1 could do it.
- Q Not me. That's -- let me -- let me
- 3 rephrase the question.
- 4 A Okay.
- 5 Q I'm somebody who understands and has
- 6 been trained in polarized light microscopy.
- 7 A Okay.
- 8 Q I'm a geologist such as yourself.
- 9 A Okay.
- 10 Q Okay. And I'm looking at the same
- 11 sample that you are.
- A Mm-hmm.
- Q Okay. Using your criteria --
- 14 A Mm-hmm.
- 15 O -- how do I come to the same conclusions
- 16 that you do?
- MR. FROST: Objection to form.
- 18 BY MR. PLACITELLA:
- 19 Q What -- what do -- how do I do that?
- 20 A You apply the criterias, the method the
- 21 EPA uses. You apply the criteria.
- 22 Q But it seems from the way you are
- 23 articulating it, with respect, that there is some
- subjectivity in applying that criteria. That you
- look at and you say, This is what I think I see.

- 1 And other people could apply the exact same
- ² criteria, have the same exact skills as you, and
- 3 possibly come to a different conclusion. Is that
- 4 possible?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: No. I'm sorry, but that's
- 7 not an answerable question.
- 8 BY MR. PLACITELLA:
- 9 Q So if I -- if I am a trained -- if I'm
- trained in polarized light microscopy, like you
- 11 are, and I look at the same sample, and I apply
- 12 your criteria, I will have no -- no -- it's
- inevitable I will reach the same exact conclusion
- 14 that you do.
- 15 A The EPA method has been tested and used
- 16 by many places, and I don't think that it is in
- ¹⁷ question.
- 18 Q So --
- 19 A I believe you would find the same
- 20 results.
- 21 Q So from your perspective, somebody with
- the same training as you, looking at the same
- example using your methodology, there is no way
- they could come to a different conclusion than you
- 25 do.

- MR. FROST: Objection to form.
- 2 BY MR. PLACITELLA:
- Q Is that what you are saying?
- 4 A I'm sorry, I can't speak for another
- 5 person. I believe the methods that EPA uses is a
- 6 recognized method among microscopists for the
- 7 analysis of bulk samples for asbestos, and I don't
- 8 think -- I think that the results should be
- 9 comparable if we look at the same slide.
- 10 Q Okay. So -- all right.
- 11 (Wylie Exhibit No. AW-31 was
- marked for identification.)
- 13 BY MR. PLACITELLA:
- 14 Q Let me go to AW-31.
- I'm sorry, I should get a smaller table.
- AW-31 is a paper that was written by you
- 17 and others?
- 18 A With coauthors, yes.
- 19 Q Okay. And including somebody --
- 20 including RJ Lee.
- 21 A He's one of the authors.
- Q Okay. And in your paper at page 241,
- you state that: "Asbestos fibers wider than
- 1 micron are composed of bundles of fibrils that
- 25 readily split longitudinally into individual

- 1 fibers of much smaller width. Even if wider
- fibers were inhaled, because of the fibular
- 3 structure of asbestos, the fibers desegregate."
- 4 Are you with me?
- 5 A I -- I'm not sure where you're reading.
- 6 There's a lot on page 241.
- 7 Q That's why I highlighted.
- 8 A Sorry. I didn't look at the screen.
- 9 Let me just look. (Peruses document.)
- 10 Yes.
- 11 Q Okay. And you further state: "Cook and
- 12 co-workers demonstrated that -- the effectiveness
- of this process in their animal intratracheal
- 14 installation experiments with ferro-actinolite
- 15 asbestos. In these experiments they showed that
- the number of fibers found in lung tissue
- increased following cessation of exposure, and
- that the increase was due to longitudinal
- 19 splitting of the asbestos fiber bundles."
- Do you agree with that?
- 21 A It says "the splitting of fiber
- 22 bundles," but, yes --
- Q Okay.
- 24 A -- that's what it says.
- 25 Q Now, I want to talk to you a little bit

- 1 about -- by the way, does any federal agency
- 2 recognize fibrous talc as asbestos?
- MR. FROST: Objection to form.
- 4 THE WITNESS: In regulatory policy? In
- 5 regulatory policy?
- 6 BY MR. PLACITELLA:
- 7 Q Yes.
- 8 A Not that I'm aware of.
- 9 Q Okay. I meant to ask you one final
- 10 question before I move on.
- 11 Is cosmetic talc a bulk material from
- 12 your perspective?
- MR. FROST: Objection to form.
- 14 THE WITNESS: Yes.
- 15 BY MR. PLACITELLA:
- 16 Q Okay. Is cosmetic talc a building
- 17 material? Bulk building material.
- 18 A I -- I don't know. I mean, I don't know
- whether it was used that way, but it's not.
- Q Okay. Okay. Now, do -- are you
- 21 familiar with a -- a testing method known as x-ray
- 22 defraction?
- 23 A Yes.
- Q Okay. And are you familiar with what
- the limits of detection are with x-ray defraction?

- 1 A I am.
- Q Okay. Can you tell me is -- is x-ray
- defraction -- well, what's the limit of detection
- 4 for x-ray defraction for amphiboles, if you know?
- 5 A I can't answer that question without
- 6 talking about the matrix.
- 7 Q Okay.
- 8 A So in some -- in some materials it might
- 9 be 5 percent.
- 10 Q Okay.
- 11 A In some materials it could be 0.1.
- 12 Q Okay. So when you -- if you're using
- 13 x-ray defraction and looking at talc that comes
- 14 out of a mine --
- 15 A Yes.
- 16 Q -- what's the limit of detection for
- 17 that purpose?
- 18 A Okay. Let me say also, going backward,
- that the detection limit depends upon the matrix,
- and it also depends upon the actual material
- 21 that's forming the -- the amphibole.
- 22 X-ray defraction cannot identify
- 23 asbestos. X-ray defraction can only identify a
- 24 mineral. Okay? So if -- in some minerals, the
- 25 same mineral from different places may actually

- 1 have different detection limits by x-ray
- ² defraction.
- Now, maybe we are splitting hairs here,
- 4 and it's the difference between 0.1 and 0.2 or 0.2
- 5 and 0.3, or something like that, percent. But it
- 6 does vary depending upon the nature of the
- ⁷ amphibole itself.
- Q Okay. So let me try to be a little bit
- 9 more specific.
- 10 A Okay.
- 11 Q Looking at a sample, talc sample --
- 12 A Yes.
- 0 -- that comes out of a Vermont talc
- 14 mine --
- 15 A Yes.
- that sample contains amphiboles --
- 18 A Yes.
- 19 Q -- before we even get to whether it's
- asbestos.
- 21 A Yes.
- 22 Q Just the mineral -- a mineral amphibole.
- 23 A Yes.
- Q Okay?
- 25 A Yes.

```
1
                For example, tremolite.
           Q
 2
           Α
                Yes.
 3
                Okay. What's the limit of detection?
           0
 4
           Α
                I don't think I know for the Vermont.
                                                         Ι
 5
    would say it was some place between 0.2 and 0.5
 6
    percent.
 7
                0.1 and 0.5 percent?
           Q
 8
           Α
                Something like that, yes.
 9
                So if you used x-ray defraction as a
           0
    screening tool --
10
11
           Α
                Yes.
12
                Okay. For that talc coming out of that
           Q
13
    mine, would you agree with me that it will not
14
    detect low levels of tremolite, putting aside
15
    whether they're asbestiform or not?
16
           Α
                You must --
17
                MR. FROST: Object --
18
                THE WITNESS: -- define "low."
19
                MR. FROST: Hold on. Objection to form.
20
                THE REPORTER: Can you repeat that,
21
    please?
22
                THE WITNESS: Please define "low."
23
    BY MR. PLACITELLA:
24
                Okay. It cannot -- you can't use x-ray
25
    defraction to find tremolite in talc at levels
```

- below 0.1 percent.
- MR. FROST: Objection to form.
- THE WITNESS: I would say that is
- 4 probably true.
- 5 BY MR. PLACITELLA:
- 6 Q Okay. Now, is there -- you get the same
- 7 talc out of a mine in Vermont, using x-ray
- 8 defraction, can you find chrysotile asbestos using
- 9 that method, x-ray defraction?
- MR. FROST: Objection to form.
- 11 THE WITNESS: Yes.
- 12 BY MR. PLACITELLA:
- O Okay. And at what level? What's the
- 14 detection level?
- MR. FROST: Object -- objection.
- 16 THE WITNESS: I've not seen data on
- 17 that.
- 18 BY MR. PLACITELLA:
- 19 Q Okay.
- 20 A But I would guess it was of the same
- 21 general -- but I -- I -- I haven't seen the data,
- 22 and there may be overlap in the peaks with
- chrysotile. I'm more familiar with amphibole.
- 24 So --
- 25 Q Okay. So --

- 1 A I'd have -- I'd have to look at the
- defraction pattern again.
- 3 Q So you don't feel comfortable talking
- 4 about that?
- 5 A I don't actually.
- 6 Q Okay. All right. Be with you in one
- 7 second.
- 8 I -- I put up in here a statement that
- 9 says: "Tremolite is the commonest asbestos
- 10 mineral found as a contaminate of talc."
- Do you agree with that?
- MR. FROST: Hold on. I'm going to
- object. We have no idea what this document is.
- MR. PLACITELLA: I'm just asking if she
- agrees with the statement, and then we'll talk
- 16 about the document.
- MR. FROST: Objection to form.
- MR. LOCKE: You're asking about this --
- you're asking her to comment on this sample?
- MR. PLACITELLA: No. I'm asking her
- whether she agrees with the statement: Tremolite
- is the commonest asbestos mineral found as a
- 23 contaminate of talc. That's what I'm asking.
- MR. FROST: Same objection to form. I
- think this is inappropriate to ask her about a

- document we don't even know what it is, frankly.
- 2 BY MR. PLACITELLA:
- Okay. Do you agree with that statement?
- 4 MR. FROST: Same objection.
- 5 THE WITNESS: I -- are we talking about
- 6 the entire -- the entire paragraph? Can I -- are
- 7 we talking about just one sentence?
- 8 BY MR. PLACITELLA:
- 9 Q I'm going to ask you about -- are you
- more comfortable looking at the whole paragraph?
- 11 A I don't care. I just want to know what
- 12 you're asking me.
- 13 Q No, I was just asking you about that one
- sentence.
- 15 A I would say that that was probably
- 16 correct.
- Q Okay. It says: "It occurs in
- 18 asbestiform and non-asbestiform varieties."
- 19 You agree with that, correct?
- 20 A Yes.
- MR. FROST: Same objections.
- 22 BY MR. PLACITELLA:
- Q Okay. And then it talks about a sample.
- 24 It says: "This sample is a chunky tremolite, not
- the asbestiform variety."

- 1 And then it states: "But when it is
- 2 ground, it produces some thin, straight particles
- which conform to the definition of 'fibers' in the
- 4 method and which are distinguishable from those
- 5 produced by asbestiform tremolite on grinding."
- 6 Do you agree with that?
- 7 A No.
- MR. FROST: And objection to form.
- 9 Again, we're talking about methods and things like
- that, and you're not allowing her to get any
- 11 context from the statement which you're having her
- 12 read.
- MR. PLACITELLA: All I'm asking her is
- if she agrees with that statement.
- THE WITNESS: I can't agree when it says
- "the method," and I have no idea what you're
- 17 talking about.
- 18 BY MR. PLACITELLA:
- 19 Q Okay. Do you agree that when
- 20 non-asbestiform tremolite is ground, it produces
- some thin, straight particles which conform to the
- definition of 'fibers' in the method and which are
- indistinguishable from those produced by
- 24 asbestiform tremolite on grinding?
- MR. FROST: Same objections.

- 1 It's getting absurd, Chris.
- THE WITNESS: I have no idea what the
- method you're talking about is. I can't possibly
- 4 agree to that statement. I don't know what the
- 5 method is.
- 6 BY MR. PLACITELLA:
- 7 Q Okay. Well, I'll give you -- so here we
- 8 have a letter from the FDA to Johnson & Johnson,
- 9 and it -- let's go through it. And I'll --
- MR. FROST: Again, objection to the
- 11 characterization of the document, but --
- MR. PLACITELLA: Well, it's from the FDA
- to Johnson & Johnson, dated May 14th, 1974. Is
- 14 there any dispute about that?
- MR. FROST: It doesn't appear to be a
- letter. It's on a letterhead that says
- 17 "Memorandum."
- MR. PLACITELLA: Oh, okay.
- 19 BY MR. PLACITELLA:
- 20 Q It says: "The purpose of this study is
- 21 to check the adequacy of microscopic method for
- detecting the presence of asbestos minerals in
- talc and for counting fibers of these minerals.
- Three reference samples and four samples for
- 25 analysis are being sent under separate cover."

- 1 Do you see that?
- 2 A Yes.
- Okay. And then it talks about reference
- 4 samples. See that?
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: I see that -- I -- I have
- 7 read that part, yes.
- 8 BY MR. PLACITELLA:
- 9 Q So -- now, just going back and this is
- what I'm trying to understand in context.
- Do you agree that if you have
- 12 non-asbestiform tremolite, that when it's ground,
- it can produce thin, straight particles which
- conform to the definition of "fibers"?
- MR. FROST: Objection --
- 16 BY MR. PLACITELLA:
- Q Do you agree with that?
- MR. FROST: Objection to form.
- 19 THE WITNESS: I -- I cannot agree when I
- don't know "the definition of 'fibers'" that this
- is referring to or in "the method," which I also
- don't know what they're referring to.
- 23 BY MR. PLACITELLA:
- Q Okay. In this case you were hired only
- 25 by Johnson & Johnson or were you hired by other

- co-defendants in the case as well? 1 2. Α Only Johnson & Johnson. 3 (Wylie Exhibit No. AW-35 was 4 marked for identification.) 5 BY MR. PLACITELLA: 6 0 Okay. I want to show you -- AW-35 is a 7 document entitled "Talc Asbestos Education 8 Document." 9 Have you ever seen this before? 10 Α No. 11 0 Okay. I'm going to show you to page 8 12 of the document. Do you know who Julie Pier is, 13 by the way? 14 Α I do. 15 And is she a respected scientist? Does 16 she know what she is talking about when it comes 17 to microscopy? 18 I really -- I think so, but I don't 19 know. I have not read her work. 20 Okay. In this document, the author 21 "The asbestiform morphological criteria, writes: 22 as defined by Wylie, may not apply to fibers that
- 25 microscope. See following quote by Wylie.

range below the resolution of the light

have been aggressively milled and area of size

23

24

```
1 not know of any outside electron microscopy method
```

- 2 that uses Wylie's definition."
- 3 Do you see that?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: I'm sorry. What page are
- 6 we on? I just --
- 7 BY MR. PLACITELLA:
- Q Page --
- 9 MR. FROST: Page 6, I believe.
- MR. PLACITELLA: -- 6.
- 11 THE WITNESS: All right.
- 12 BY MR. PLACITELLA:
- Q Do you agree with this sentence?
- 14 A Are we reading J --
- O Yes, ma'am.
- 16 A -- WP note?
- 17 Q And I think your quote is right
- 18 underneath it.
- MR. FROST: Who is it to? I believe
- it's more than one sentence.
- MR. PLACITELLA: Yeah.
- THE WITNESS: Okay. What are you asking
- 23 me to agree to?
- 24 BY MR. PLACITELLA:
- Q I'm asking whether you agree with this

- 1 statement by Julie Pier that says: "The
- 2 asbestiform morphological criteria, " as defined by
- you, Ann Wylie, "may not apply to fibers that have
- 4 been aggressively milled and area of the size
- 5 range below the resolution of the light
- 6 microscope."
- 7 Do you agree with that?
- 8 MR. FROST: Objection to form.
- 9 THE WITNESS: When I was -- I need to
- 10 give you a little context.
- When I was working with the Bureau of
- 12 Mines, we aggressively milled asbestos, and we had
- 13 no problem identifying it by those criteria
- 14 following aggressive milling.
- 15 BY MR. PLACITELLA:
- 16 Q Well, you aggressively milled asbestos.
- 17 I'm not talking about aggressively milling
- 18 asbestos. Here they're -- they're talking about
- 19 aggressively -- well, scratch that. I withdraw
- 20 that statement.
- 21 A Okay.
- Q So when you aggressively milled
- asbestos, when you -- and you say you did work
- 24 with the Bureau of Mines?
- 25 A The Bureau of Mines aggressively milled

- 1 it.
- Q Okay. You still found asbestos below
- 3 the limit of detection in a light microscope?
- 4 MR. FROST: Objection to form.
- 5 THE WITNESS: Found -- I'm sorry, but
- 6 again your question is not terribly clear. You
- 7 asked me if we found asbestos below the resolution
- 8 of the light microscope?
- 9 BY MR. PLACITELLA:
- 10 Q Well, you refer -- you responded to my
- 11 question about milling of asbestos.
- 12 A Yes.
- Okay. And when you're -- when you say
- that, you're talking about undisputed asbestos
- 15 products, correct?
- 16 A I'm talking about asbestos, yes.
- Q Right. Okay.
- So that's what I'm asking you. Do you
- agree with the statement by Pier that asbestiform
- 20 morphological criteria, as defined by you, may not
- 21 apply to fibers that have been aggressively milled
- 22 and are of the size range below the resolution of
- the light microscope?
- MR. FROST: Objection to form.
- THE WITNESS: If the question is, can

- 1 you apply definitions to particles you can't see
- 2 by polarized light microscopy, of course you
- 3 cannot.
- 4 BY MR. PLACITELLA:
- 5 O Okay. Fair enough.
- I want to see if I can -- I got your
- 7 tests down correctly when asking you the question,
- 8 okay?
- 9 Assume that you have a particle that has
- the following characteristics: The morphology of
- 11 a single fiber with a 3-to-1 aspect ratio,
- 12 parallel sides, more than 5 microns long.
- 13 Are you with me so far?
- 14 A Yes.
- 15 Q And chemical signature of tremolite as
- determined by EDS or EDXA.
- 17 Are you with me?
- 18 A Yes.
- 19 Q Okay. And the crystalline structure
- 20 consistent with amphibole asbestos.
- 21 Are you with me?
- 22 A There is --
- MR. FROST: Objection to form.
- 24 THE WITNESS: There is no structure
- 25 typical of amphibole asbestos.

- 1 BY MR. PLACITELLA:
- Oh. So there is no structure?
- 3 A Typical of amphibole asbestos.
- 4 Structures typical of amphibole.
- 5 Q Okay. Crystalline structure consistent
- 6 with amphibole.
- 7 A Amphibole.
- 8 Q Okay. What analytical techniques are
- 9 necessary to tell whether that fiber-shaped
- 10 particle grew in an asbestiform habit or not?
- 11 A A single particle, you can't make a
- distinction necessarily. Necessarily.
- Q Okay. So if you're looking at a single
- 14 fibril under a microscope, the light microscope,
- you can't tell whether it grew in an asbestiform
- 16 habit or not. Correct?
- 17 A That's not what I said.
- MR. FROST: Objection to form.
- 19 BY MR. PLACITELLA:
- Q Okay.
- 21 A You asked me if I had a particle that
- 22 was 5 micrometers long --
- Q Okay.
- 24 A -- and it had parallel sides --
- Q Okay.

- 1 A -- and it had a 3-to-1 aspect ratio, if
- 2 I could tell by that single particle whether it
- 3 formed an asbestiform habit or was formed by
- 4 cleavage, I think would be the alternative.
- Q Okay.
- 6 A And I normally don't -- unless there
- 7 were properties there, and they're optimal
- properties, they had -- it had anomalous optical
- 9 properties, I would be able to tell.
- 10 Q But if it's not there, you can't tell.
- 11 A But if -- that's -- that's right.
- 12 Q Okay. And same assumptions, what
- analytical techniques are available that would
- 14 allow you to test the textile -- tensile strength
- and flexibility of that particle?
- 16 A For a 5 micrometer particle, there are
- none.
- Q Okay. Assuming you have a particle --
- 19 if you have particles exactly of the same size and
- shape, chemically, surface area and surface
- charge, can you tell the difference between what's
- 22 an asbestiform and non-asbestiform tremolite?
- MR. FROST: Objection to form.
- THE WITNESS: I can't answer your
- question. It's too hypothetical.

- 1 MR. PLACITELLA: Sorry. Oh, that's not
- very clear. Is there a way to turn -- turn that
- 3 light off?
- 4 MR. FROST: Yeah, it's not particularly
- 5 clear on the screen either, though, or on the TV
- 6 monitor.
- 7 MR. PLACITELLA: Can we turn the
- 8 light -- at least turn the light off?
- 9 MR. FROST: I was going to say we can
- 10 try, I guess.
- 11 BY MR. PLACITELLA:
- 12 Q So this appeared in an article by Harper
- in 2008, and in looking at these photomicrographs,
- 14 are you able to tell what -- which one is
- asbestiform tremolite and which one is a cleavage
- 16 fragment?
- MR. FROST: Objection to form.
- THE WITNESS: So you're telling me that
- one is a cleavage fragment and one is a fiber? Is
- that what you're telling me?
- 21 BY MR. PLACITELLA:
- Q Or both. Can you tell whether either of
- them are a cleavage fragment?
- MR. LOCKE: Objection to form.
- THE WITNESS: I do not make distinctions

- on individual particles. This is an optical
- 2 micrograph, and which is inserted a red-1
- 3 compensator, and so it obscures some of the
- 4 optical properties. I don't know whether -- what
- 5 it would look like under crossed nicols. There
- 6 are other tests to be looked at. So...
- 7 BY MR. PLACITELLA:
- 8 Q Well, this is under a microscope that
- 9 you use, though, right?
- 10 A Well, yes, but --
- MR. FROST: Objection to form.
- 12 THE WITNESS: -- you put a phase 1 --
- you put a phase 1 retardation plate within the
- 14 microscope system, so you're losing information.
- 15 BY MR. PLACITELLA:
- 16 Q Okay. So on this slide -- you can't
- tell from looking at this slide whether this is a
- 18 cleavage fragment or asbestiform tremble --
- 19 tremolite, correct?
- MR. FROST: Objection to form.
- THE WITNESS: I could only guess.
- 22 BY MR. PLACITELLA:
- Q Okay. So does that help you?
- MR. FROST: Objection to form.
- THE WITNESS: I suppose that's what

- 1 Harper says. If I had guessed, I probably would
- 2 have gone that way. But I don't guess.
- 3 BY MR. PLACITELLA:
- 4 Q Okay. Now -- I have another slide up
- 5 here, and can you describe what you're seeing?
- 6 A I see elongated mineral particles.
- 7 Q Okay. And what kind of output?
- 8 A Oh -- well, number 1 and 4 are pretty
- 9 clearly from transmission electron microscopy,
- because I recognize the filter background. 2 and
- 11 3, I -- I don't know.
- 12 Q Are we looking at cleavage fragments or
- 13 asbestos here?
- MR. FROST: Objection to form.
- THE WITNESS: As I said before, I don't
- make determinations based on individual particles,
- unless I have other information.
- 18 BY MR. PLACITELLA:
- 19 Q Well --
- 20 A This is TEM.
- 21 Q Okay. So using this slide, you can't
- tell whether these are cleavage fragments or
- 23 asbestos. Is that fair?
- MR. FROST: Objection to form.
- THE WITNESS: I can guess.

- 1 BY MR. PLACITELLA:
- Q Well, I don't want you to guess.
- 3 A Okay.
- 4 Q You can't tell.
- 5 MR. FROST: Objection to form.
- 6 THE WITNESS: I would -- let me just say
- 7 there -- there are properties of cleavage
- 8 fragments on number 1.
- 9 Number 2 looks like two different
- 10 minerals to me, but I don't know what -- you know,
- 11 I don't know what they are.
- Number 3, similarly, it looks to me like
- one mineral and another coating it, so I really
- 14 don't -- it's obscuring the characteristics.
- Number 4 has characteristics that would
- be consistent with cleavage fragments. But,
- again, you know, I'd have to look at the
- population at many particles before I would be
- willing to do anything other than guess.
- 20 BY MR. PLACITELLA:
- 21 Q So, as we sit here today, it's your
- testimony that looking at a single particle or
- fiber using a polarized light microscopy, you
- 24 cannot make the call about whether that's asbestos
- or not?

- 1 MR. FROST: Objection to form.
- 2 BY MR. PLACITELLA:
- Q Correct?
- 4 A No. You asked me to look at the
- 5 polarized light micrographs in the previous slide,
- 6 in which a red-1 compensator had been inserted,
- 7 and which the optical properties are therefore
- 8 obscured other than a sign of elongation. So
- 9 there's no other information.
- 10 So I'm not going to tell you that I
- 11 couldn't look at that particle and study it in
- more detail, and with the other properties, the
- nine or ten properties that I listed, and tell
- 14 you. I would have better -- be better able to do
- that because the asbestos has anomalous
- 16 properties.
- 17 Q All right. What I'm asking -- what I'm
- 18 asking you -- okay, we left that. This -- these
- are TEM up here on the screen?
- 20 A Yes. The question you asked me included
- 21 polarized light. I'm sorry.
- Q That was my mistake.
- 23 A Okay.
- Q What we have here are photomicrographs
- of TEM, correct?

- 1 A Yes.
- 2 Q And is it your testimony that you can't
- 3 look at these photomicrographs and make a call
- 4 about whether they are asbestos or not on a single
- 5 particle or fiber basis?
- 6 MR. FROST: Objection to form.
- 7 BY MR. PLACITELLA:
- 8 Q Is that what you're saying?
- 9 A I never or almost never try to make
- distinctions on single particles unless the
- 11 properties are very clear.
- 12 On sample 1, there are -- there is a
- 13 stepwise pattern at the end of the particle that
- 14 suggests cleavage, but the -- and the particle is
- 15 not regular in its width through the entire
- length. And that would be the case of also
- 17 number 4. These would lead me to suspect that
- they are cleavage fragments.
- 19 Q Okay. But you can't state within a
- 20 reasonable degree of scientific certainty that
- these are asbestos or cleavage fragments, given
- the information you have.
- MR. FROST: Objection to form.
- 24 BY MR. PLACITELLA:
- 25 O Correct?

```
I can't make distinctions. I rely on
 1
           Α
 2
    populations.
 3
           Q
                Okay. Okay.
 4
                MR. FROST: Do you want to take a break
 5
    now, Chris --
 6
                MR. PLACITELLA: Hold one second.
 7
                MR. FROST: -- unless you have more of
 8
    these?
 9
                MR. PLACITELLA: Hold one second.
                                                    No, I
    just have this one I want to --
10
11
    BY MR. PLACITELLA:
12
                So 1 is a sample from RJ Lee Group,
           Q
13
    cleavage fragment.
14
           Α
                Mm-hmm.
15
                3 is asbestos, that's from the NIST
16
    reference material. You've seen that before, I
17
    assume.
18
                Mm-hmm.
           Α
19
                Okay. 2 was asbestos, and 4 was
20
    cleavage fragment.
21
                Mm-hmm.
           Α
22
                Correct?
           Q
23
                Mm-hmm.
          Α
24
                Okay. Now, one more --
           Q
25
                MR. FROST: Objection to form based
```

```
1
     on --
 2.
                MR. PLACITELLA: I have one more
 3
    question, then we can take a break.
 4
                THE WITNESS: Actually, there's nothing
 5
    in here that tells me where they're from.
 6
    BY MR. PLACITELLA:
 7
           Q
                Okay.
 8
           Α
                So I -- I said correct. I'm going to
 9
    redraw that. I can't say correct.
                                          There's
10
    nothing in there that tells me if these are
11
    cleavage fragments or fiber.
12
                Could we go back and look?
13
                What's your issue?
           0
14
                That I agreed to something I'm not sure
           Α
15
    is true.
16
                Oh.
           Q
17
                I'd like very much --
           Α
18
                I was just reading to you what was on
           0
19
     the screen. You don't have to agree or disagree.
20
           Α
                Okay.
21
                Okay?
           Q
22
           Α
                All right.
23
           0
                So I want to show you -- can you tell me
24
    if that is asbestos or a cleavage fragment?
25
                            Objection to form.
                MR. LOCKE:
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- THE WITNESS: I've told you before that
- 2 I'm very unwilling to -- unless there's clear --
- 3 and I said that in report -- unless there are
- 4 clear characteristics that you can see for
- 5 cleavage fragments or for fiber to make
- 6 distinctions on a particle-by-particle basis, it's
- 7 not reasonably sound.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. So in looking at this particular
- 10 photo -- by the way, what's -- so the record is
- 11 clear, what's this an output of?
- 12 A Well, you gave it to me. Perhaps you
- 13 should tell me.
- 14 Q Well, do -- do you know whether it's
- 15 from TEM, PLM? What is it?
- MR. FROST: Objection to form.
- 17 THE WITNESS: It appears to be from TEM.
- 18 I see the holes in the filter, so --
- 19 BY MR. PLACITELLA:
- 20 Q Right. And from looking at this TEM --
- 21 this particle under TEM, you can't tell as you sit
- here whether that's a cleavage fragment or
- 23 asbestos, correct?
- MR. FROST: Objection to form.
- THE WITNESS: You know, it looks to me

- like it's composite. I'm not at all clear what's
- going on. The width is uneven through its length,
- 3 and that would be unusual for asbestos.
- 4 BY MR. PLACITELLA:
- 5 Q So you believe it's a cleavage fragment?
- 6 A I didn't say that.
- 7 MR. FROST: Objection to form.
- 8 BY MR. PLACITELLA:
- 9 O You can't tell.
- 10 A I said it would be unusual for it to be.
- 11 Q Okay.
- 12 A I would not expect it to be asbestos for
- 13 that reason.
- Q Okay. But as you --
- 15 A But it's a coat -- coating on it. It
- looks to be like there's more than one mineral,
- and so we're not really -- it's not really fair.
- 18 It looks like more than one mineral.
- 19 Q Well, I'm -- I can't be fair or unfair.
- That's why I'm just asking you your opinion.
- 21 A It looks like more than one mineral.
- 22 Q Okay. Now --
- MR. PLACITELLA: You wanted to take a
- 24 break, that's fine.
- MR. FROST: Yeah, is this a good time?

- MR. PLACITELLA: Yeah, a break is fine.
- THE VIDEOGRAPHER: The time is
- 3 2:56 p.m., and we're going off the record.
- 4 (Recess.)
- 5 THE VIDEOGRAPHER: The time is 3:44
- 6 p.m., and we are back on the record.
- 7 MR. PLACITELLA: Okay. I always like to
- 8 tell people where I am and where I'm going, so I'm
- 9 about 15 minutes, give or take, until we're done.
- 10 Okay.
- 11 BY MR. PLACITELLA:
- 12 Q Okay. I just wanted to go back, finish
- this line of questioning and then move to a
- 14 different place.
- So I put up here three other slides.
- 16 Are you able to tell from looking at these slides
- whether they represent asbestos or cleavage
- 18 fragment?
- 19 A I can't read the scale.
- MR. FROST: Objection to form.
- 21 BY MR. PLACITELLA:
- Q I guess I can't either.
- Nope. Sorry. That's the best I can do.
- Can you tell whether it's cleavage
- 25 fragments or asbestos?

- 1 A No.
- Q Okay. And one last one. See if I can
- 3 get this so you can -- that's big enough,
- 4 hopefully.
- 5 Can you tell whether that slide is a
- 6 cleavage frag- -- fragment or asbestos?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: There's no scale.
- 9 BY MR. PLACITELLA:
- 10 Q So you need a scale in order to make
- 11 that assessment?
- 12 A I need a scale.
- 2 So does -- does that help you in any
- 14 way?
- 15 A Yes.
- Okay. So is it a cleavage fragment or
- 17 asbestos?
- 18 A It's 0.7 micrometers in width.
- 19 Q Mm-hmm.
- 20 A And I see no evidence of fibril bundles.
- Q Mm-hmm.
- 22 A So, again, with the understanding that I
- 23 normally do not try to look at individual
- 24 particles and put them in one bin or the other.
- Q Mm-hmm.

- 1 A But given that, I would say it more
- 2 closely resembles a cleavage fragment than an
- 3 asbestos fiber.
- 4 Q Can you say that within a reasonable
- 5 degree of scientific certainty?
- 6 A As I told you before, I normally do not
- ⁷ try to look at individual particles.
- 8 Q Okay. So that's why I'm asking you so
- 9 the record is clear, and I'm fine with that, you
- 10 can't state within a reasonable degree of
- 11 scientific certainty whether this is a cleavage
- 12 fragment or asbestos?
- MR. FROST: Objection to form.
- 14 THE WITNESS: I don't know what the
- mineral is. It would be very difficult for me to
- 16 make that determination when I don't even know
- what the mineral is.
- 18 BY MR. PLACITELLA:
- 19 Q Well, assume it's tremolite.
- 20 A Well --
- Q Does that change anything?
- 22 A Is it tremolite?
- MR. FROST: Same objection.
- 24 BY MR. PLACITELLA:
- 25 Q Just assume it's tremolite.

- 1 A I'm sorry, but you just can't tell me
- 2 look at a particle and assume it's one mineral and
- 3 ask such questions.
- It's 0.7 micrometers in width. I see no
- 5 evidence of fiber bundling. So I would be
- 6 inclined to conclude, given only that information
- and your assertion that it's tremolite, that it
- 8 came from a cleavage fragment population.
- 9 BY MR. PLACITELLA:
- 10 Q Are you willing to testify to that
- 11 within a reasonable degree of scientific
- 12 certainty?
- MR. FROST: Objection to form.
- 14 THE WITNESS: I've already said I
- normally don't do it on particle-by-particle
- 16 basis.
- 17 BY MR. PLACITELLA:
- Q Well, that's fine. If you say, No, I'm
- 19 not willing to testify within a reasonable degree
- of scientific certainty, I'll move on. That's all
- 21 I'm asking.
- A Aren't I testifying right here?
- Q Is that what -- is that your testimony?
- 24 A My testimony is that, based on its width
- 25 and the lack of any evidence of a fiber bundle,

- 1 that I would conclude that it is most likely,
- within a reasonable degree of scientific
- 3 certainty, but I can't tell you what it is -- but
- 4 I would say it's most likely that it's a cleavage
- 5 fragment.
- 6 Q Okay. But you're not certain.
- 7 A I don't even know that -- what the
- 8 mineral is.
- 9 Q Okay. So you're not certain.
- 10 A I can't be certain --
- MR. FROST: Objection to form.
- 12 THE WITNESS: -- unless I know what the
- mineral is.
- 14 (Wylie Exhibit No. AW-51 was
- marked for identification.)
- MR. FROST: Wow, that's a lot of paper.
- 17 BY MR. PLACITELLA:
- Okay. I'm going to show you what we've
- marked here -- can we go to -- as AW-51.
- Is this the Pooley report that you
- 21 reviewed in preparation for your -- for your
- 22 report?
- 23 A Is there a date on it?
- Q This is as it was given. It was from --
- the second page says "From Light -- Lightfoot."

- 1 A Yes.
- 2 Q "Kingston and Pooley."
- A Yes. But it doesn't have a date.
- 4 The -- I'd have -- I -- I'm not meaning to
- 5 quibble. It -- I looked at a report by Lightfoot,
- 6 et al., on the Italian mine, but there -- I had a
- ⁷ date on the one I looked at. I don't see a date.
- MR. FROST: Here, it --
- 9 THE WITNESS: Does it have a date?
- 10 MR. FROST: This might help, Chris. I'm
- 11 going to give her the one from --
- MR. PLACITELLA: Yeah, go ahead.
- MR. FROST: -- from the reliance
- 14 materials. Is that the one --
- 15 MR. PLACITELLA: Is that the same
- 16 report?
- MR. FROST: That's what I'm going to
- 18 have her check. Is that the one you're -- you're
- 19 referencing?
- MR. PLACITELLA: It has the same exact
- 21 title. That's why I was asking.
- THE WITNESS: Let me just look.
- MR. PLACITELLA: Sure.
- 24 THE WITNESS: Without going through it
- page by page, it certainly appears to be the

- 1 report I reviewed.
- 2 BY MR. PLACITELLA:
- Q Okay. And --
- 4 MR. FROST: Here, why don't you use the
- one you reviewed. We can mark yours, and that way
- 6 if there is a distinction between the two, we'll
- 7 know pretty quickly during questioning.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. Well, it's -- the title is
- 10 exactly the same --
- 11 A Yes.
- 12 Q -- as in your paper, correct?
- 13 A Yes. And the first page is the same.
- 14 Q Exactly the same. Okay. And that's --
- 15 A Well --
- 16 Q If you see AW-51, it also was Pooley 10.
- 17 Do you see that?
- 18 A Yes.
- 19 Q Okay. Now --
- MR. PLACITELLA: Hand that down.
- 21 BY MR. PLACITELLA:
- 22 Q Now, I'm going to show you and hand you
- a copy of the testimony from Dr. Pooley concerning
- 24 this exact study.
- MR. PLACITELLA: Hold on. You guys each

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1
    have your own.
 2.
                Okay.
 3
    BY MR. PLACITELLA:
 4
                This was February of last year at the
 5
    offices of Johnson & Johnson's attorneys.
 6
                MR. FROST: Yeah, I'm going to object to
 7
    this exhibit, Chris, to the extent it's just an
    excerpt from the deposition. It's not the full
 8
9
    transcript.
10
                MR. PLACITELLA: That's fine.
11
    BY MR. PLACITELLA:
12
                You see I'm going to turn to page 428,
           0
13
    where they -- by the way, when you were given the
14
    Pooley report, Exhibit 10, no one gave you his
15
    sworn testimony about what was in the report,
16
    correct?
17
           Α
                No.
18
                Okay. Do you see here on page 428, it
           0
19
    says:
20
                   "O.
                        But we've got Exhibit 10,
21
                which is your report, and if he's
22
                reading your report on the very
23
                back, Fred Pooley, that's not what
24
                it says, is it?"
25
                   "A.
                        Uh-huh."
```

1	"Q. Mr. Bicks has inadequately
2	quoted this report. Particles
3	formed from the amphibole mineral
4	found at the mine were hardly
5	fibrous."
6	"A. Yeah."
7	"Q. 'The majority broke to give
8	compact particles.'" They got too
9	small. Doesn't that mean all of
10	them did, does it?
11	"Doesn't mean all of them
12	did, does it?"
13	"A. Nope."
14	So he must have been doing this in an
15	English accent. It would have probably sounded
16	much better.
17	Then he says:
18	"Q. So he didn't quote it here,
19	but you found tremolite that was
20	asbestiform that didn't break
21	apart, didn't you."
22	Answer by the witness:
23	"A. Yes. A few particles, yes."
24	Were were you aware
25	MR. FROST: Well, hold on. First, I'm

- 1 going to object as to completeness. They're
- 2 clearly referring to another part of the
- 3 transcript here, which you have not included.
- 4 Therefore, I would object to the sort of small
- 5 cherry-picked assertion we have here about 10,
- 6 when it clearly is quoting to other portions of
- ⁷ the transcript that are not included here, which I
- 8 fear are needed for context in order to answer
- 9 this question.
- 10 BY MR. PLACITELLA:
- 11 Q Okay. Putting that form objection
- 12 aside, were you aware that Dr. Pooley had
- 13 testified under oath that he found asbestiform
- 14 tremolite in the Italian talc?
- MR. FROST: Objection to form.
- 16 THE WITNESS: I was not.
- 17 BY MR. PLACITELLA:
- 18 Q Okay. Now, I know you indicated before
- that you only looked at information related to the
- 20 geology of the mines. Is that fair?
- MR. FROST: Objection to form.
- THE WITNESS: Say it -- say it one more
- 23 time.
- 24 BY MR. PLACITELLA:
- Q Well, let me ask the question this way.

- 1 A Okay.
- 2 Q Part of what you did in this case is you
- 3 looked at the actual -- a report by Dr. Longo of
- 4 the baby powder that he looked at under a
- 5 microscope, correct?
- 6 A I did look at that.
- Okay. And he -- he used TEM, correct?
- 8 A Yes.
- 9 Q And you used TEM, correct?
- MR. FROST: Objection to form.
- 11 BY MR. PLACITELLA:
- 12 Q It's one of the -- it's one of the
- methods that you used to test for asbestos,
- 14 correct?
- 15 A I don't think I've ever used TEM to test
- 16 for the presence of asbestos.
- Q Okay. And he used PLM, correct?
- 18 A Yes.
- 19 Q And you used PLM, correct?
- 20 A Yes.
- 21 Q He mentioned using a concentration
- 22 technique. Do you recall that?
- 23 A Yes.
- Q And you mention in your report that he
- used a concentration technique, but you didn't

- 1 take any issue with that. Is that fair?
 - 2 A That's fair.
 - Q Okay. So in terms of the methodology
 - 4 that he used, that is the concentration technique
 - 5 and at least the PLM, you don't have a
 - 6 disagreement, correct?
 - 7 A Oh, yes, I do.
 - 8 MR. FROST: Objection to form.
 - 9 BY MR. PLACITELLA:
- 10 Q You do.
- 11 A (The witness nods.)
- 12 Q So you disagree with the fact that he
- used PLM?
- MR. FROST: Objection to form.
- 15 Misstates testimony.
- MR. PLACITELLA: Well, let me just --
- 17 let me just -- maybe because it was a compound
- 18 question.
- 19 BY MR. PLACITELLA:
- Q Do you disagree with the fact that he
- used PLM?
- 22 A No.
- Q Okay. Do you disagree with the fact
- that he used the concentration technique?
- 25 A No.

- 1 Q Okay. You looked at the same photos
- that he did, correct?
- A Yes.
- 4 Q And you reached a different conclusion.
- 5 Correct?
- 6 A Yes.
- 7 MR. FROST: Objection to form.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. Now -- and when you -- when you
- 10 did your analysis, you understood that what
- 11 would -- what you would find in the end product,
- 12 you wouldn't find asbestos or tremolite or
- anything else in the end product if it wasn't in
- 14 the talc from the mine, correct?
- MR. FROST: Objection to form.
- 16 THE WITNESS: Unless they added it.
- 17 BY MR. PLACITELLA:
- 18 Q Right.
- 19 A Yes.
- Q Okay. So on Hopkins 28, in terms of --
- 21 and I'm not going to go through it all now, I
- 22 promise you -- all of these tests that were done
- of the actual product, that would be relevant to
- 24 whether -- to the conclusion about whether there
- was asbestos in Johnson's Baby Powder or Shower to

- 1 Shower, correct?
- MR. FROST: Objection to form.
- THE WITNESS: Would you mind repeating
- 4 the question? I got a little bit distracted.
- 5 BY MR. PLACITELLA:
- 6 O Sure.
- 7 A Okay.
- 8 Q On Hopkins 28, we didn't go through it
- 9 in detail. That's this spreadsheet.
- 10 A Okay. Okay.
- 11 Q There are a number of -- there are many
- tests related to the end product.
- 13 A Yes.
- 14 Q Okay. Although you looked at the
- testing of the end product by Dr. Longo, you were
- 16 not provided any of the test results concerning
- the end product on Hopkins 28 to determine whether
- 18 it supported or refuted Dr. Longo conclusions or
- 19 your conclusions.
- MR. FROST: Objection to form.
- 21 BY MR. PLACITELLA:
- 22 O Correct?
- 23 A I did not look at any of those doc- --
- 24 at any of those documents.
- Q Okay. Nor were they provided to you.

- 1 MR. FROST: Objection to form.
- THE WITNESS: No.
- 3 BY MR. PLACITELLA:
- Q Okay. Now, you were -- you were going
- 5 to take a look at my tests during the break. Did
- 6 you do that?
- 7 A I did.
- Q Okay. Do you have that with you?
- 9 A Not yet.
- 10 Q Okay.
- 11 A Why?
- 12 Q What did I get?
- 13 A No, I -- you know --
- MR. FROST: We need a couple more
- 15 minutes. If you want, we can take a break and get
- 16 it and bring it back.
- MR. PLACITELLA: No. Could somebody go
- 18 get it?
- MR. FROST: It's not done yet.
- 20 BY MR. PLACITELLA:
- 21 Q I mean, did I get a B? An A? What did
- 22 I get?
- 23 A You passed.
- MR. FROST: Objection to form.
- 25 BY MR. PLACITELLA:

- 1 Q I passed. Okay. Well, I guess that's
- 2 good for you.
- You were -- questions were asked --
- 4 A But I did make some clarifications.
- 5 O That's fine. That's what -- I told you
- 6 you could do that.
- 7 A I know. I just wanted to be sure.
- 8 O When the teacher --
- 9 A Passing is not necessarily an A.
- 10 Q In geology, give me a B. I'm fine,
- 11 okay?
- 12 All right. Some questions were asked
- about your deposition. I want to know if you know
- 14 the answers.
- 15 Did you ever have any communications
- with Mickey Gunther concerning the work you were
- doing in this case?
- 18 A No.
- 19 Q Okay. Did you ever have any
- 20 communications with Mickey Gunther on the subject
- of whether there's asbestos in Vermont talc?
- MR. FROST: Objection to form.
- THE WITNESS: Not that I recollect, no.
- 24 BY MR. PLACITELLA:
- Q Okay. Did you have any communications

- 1 or conversations with RJ Lee or Matt Sanchez
 - 2 concerning your opinions in this case?
 - 3 A No.
- 4 Q Okay. Did you ever have any
- 5 communications with RJ Lee or Matt Sanchez
- 6 concerning the issue of whether there's asbestos
- 7 in Vermont talc?
- 8 A No.
- 9 Q Okay. Did you ever do any work for
- 10 Colgate Palmolive?
- MR. FROST: Objection to form.
- 12 THE WITNESS: I met -- no. No. I was
- 13 never paid by Colgate Palmolive.
- 14 BY MR. PLACITELLA:
- 15 Q Were you ever consulted by Colgate
- 16 Palmolive?
- 17 A I think there were lawyers that came to
- 18 talk with me, but -- from Colgate Palmolive, but
- 19 I -- I never did anything with that.
- Q How come?
- 21 A They came and talked to me.
- O How come?
- 23 A I just didn't. I wasn't that interested
- 24 in --
- Q Okay.

1 -- doing litigation type work. Α 2. Did you do any testing for them? 0 3 Α No. 4 Okay. What about Cyprus Mines, did you ever do any work for them? 5 MR. FROST: Objection to form. 6 7 THE WITNESS: Long ago, I -- I did 8 analyze some samples for them. 9 BY MR. PLACITELLA: 10 Okay. And in what context? 0 MR. FROST: Objection to form. 11 12 THE WITNESS: They probably sent them to 13 me. 14 BY MR. PLACITELLA: 15 Was it in the context of litigation or 16 in just the normal course of their business? 17 I think just the normal -- I believe, to 18 the best of my recollection, the normal course of 19 their business. 20 Who was the person at Cyprus that you dealt with, do you recall? 21 22 No. Α 23 Do you recall what you found? 0 24 Α No.

MR. FROST: Objection to form.

```
1
                MR. PLACITELLA: Okay. So I just want
 2
    to make sure we have for the record, 53 is a
 3
    curriculum vitae, so you have it.
 4
                (Wylie Exhibit AW-53 was marked
 5
                for identification.)
                MR. FROST: Is this the one --
 6
 7
                MR. PLACITELLA: Mm-hmm.
 8
                MR. FROST: -- you referenced earlier?
 9
                MR. PLACITELLA: Yes, the one I -- that
10
    we went and got copies of.
11
                AW-16 is the letter from Dr. Ashton to
12
    Dr. Wylie.
13
    BY MR. PLACITELLA:
14
                While we're waiting, you --
15
                    (Counsel conferring.)
16
    BY MR. PLACITELLA:
17
                -- you mentioned before something known
18
    as a mean aspect ratio.
19
           Α
                Yes.
20
                Could you explain that? How do you
21
    determine what a mean aspect ratio is?
22
                You average measurements.
           Α
23
                How -- how do you average measurements
    of a fiber -- in a fiber bundle?
24
25
           Α
                Well, the mean aspect ratio of the
```

- 1 particle is its length divided by its width.
- 2 That's what it is.
- Q Oh, so you don't have to count the
- 4 fibrils that make up a bundle? When you say "mean
- 5 aspect ratio, "you're just saying it's the -- the
- 6 length divided by the width?
- 7 A That's correct.
- 8 Q Okay. Now, did you base your aspect
- 9 ratio of 20-to-1 on the 1984 paper that we went
- 10 through before?
- MR. FROST: Objection to form.
- 12 BY MR. PLACITELLA:
- 13 Q You told me that you use a 20-to-1
- 14 aspect ratio for PLM when looking at talc. Fair?
- 15 A I look for all of the properties. And I
- 16 look for fiber bundles, I look for high aspect
- 17 ratio particles, I look for all of the properties.
- 18 Q I'm giving you that. That's not my
- 19 question.
- 20 A Okay.
- 21 Q So I want to just try to get on the same
- 22 page.
- 23 A Okay. All right.
- Q You -- I'm just talking about the aspect
- 25 ratio --

- 1 A Yes.
- 2 O -- of 20-to-1.
- 3 A Yes.
- 4 Q What -- where did that come from?
- MR. FROST: Objection to form.
- 6 THE WITNESS: Hmm, where did it come
- 7 from? Probably measurements that were made
- 8 with -- from the SEM. Observations on many
- 9 asbestos samples that I made. It would be an
- 10 approximation. You have under the microscope
- scales, and so you can kind of see what the aspect
- 12 ratios are.
- 13 BY MR. PLACITELLA:
- Q Okay. But you can't -- I'm probably
- just not making myself clear. I apologize. It's
- 16 late in the day.
- You -- you use as a standard 20-to-1
- 18 aspect ratio, correct?
- 19 A No. I -- no.
- Q Go ahead.
- 21 A I -- when -- when you asked me what my
- 22 criteria were, I said an abundance of high aspect
- ²³ ratio particles.
- 24 Q All right. 20-to-1.
- MR. FROST: Objection to form.

- 1 THE WITNESS: An abundance of high
- 2 aspect ratio particles with a mean. Mean.
- 3 BY MR. PLACITELLA:
- 4 Q Okay.
- A A mean is not a 20-to-1. You can have a
- 6 10-to-1.
- 7 Q Okay.
- 8 A To get a mean, you have some are less
- 9 and some are greater.
- 10 Q Okay.
- A And the more greater they are, the more
- 12 they weight the mean.
- Q Okay. So you could have short ones and
- some long ones, and that's how you get to 20.
- MR. FROST: Objection to form.
- THE WITNESS: Short ones and long ones,
- that's how you get to 20.
- 18 You can have high aspect ratio -- you
- can have 20-to-1 particles. You can have less
- than 20-to-1 particles.
- 21 BY MR. PLACITELLA:
- Q Okay.
- 23 A So -- but when you look at a population,
- you find that -- the mean aspect ratio for the
- populations that we measured. All right. It's

- one of the reasons why I said an abundance of high
- 2 aspect ratio particles being 20-to-1 or greater.
- 3 But a mean aspect ratio is -- encompasses all
- 4 particles longer than 5 micrometers.
- O Mm-hmm.
- 6 A Longer than 5 micrometers, and an
- 7 average of their aspect ratio. That's what the
- 8 word "mean" means.
- 9 Q Okay. Fair enough.
- 10 And I'm saying in the standard that you
- 11 apply, the 20 -- the mean aspect ratio 20-to-1,
- 12 all right, what is that based on?
- 13 A At the time we had -- I had measured
- quite a few asbestos populations by scanning
- electron microscopy, and I used that to check for
- what I might be able to say would be a mean.
- 17 Q So you looked at bulk asbestos
- 18 populations?
- 19 A Yes.
- Q Okay. And when you say "populations,"
- 21 how is that defined when you came to that standard
- 22 of 20-to-1?
- 23 A Well, we measured -- "we" being the
- 24 Bureau of Mines -- you know, thousands of
- 25 particles.

- Q Okay. So the 20-to-1 aspect ratio --
- 2 A Mean.
- Q -- mean aspect ratio, had no
- 4 relationship to your 1984 paper that we went over
- 5 before?
- 6 MR. FROST: Objection to form.
- 7 BY MR. PLACITELLA:
- 8 Q You didn't get it from there?
- 9 MR. FROST: Objection to form.
- 10 THE WITNESS: I didn't get it from the
- 11 paper I wrote?
- 12 BY MR. PLACITELLA:
- 13 Q That's what I'm asking you.
- 14 A You mean I referenced -- I got it from
- 15 what I wrote? I would never. I mean I don't
- understand your question. How could I get it from
- 17 what I wrote?
- 18 O Well --
- 19 A I wrote from the -- I got it from the
- 20 data.
- Q Okay. Well, that's my question. You
- 22 didn't get it from the analysis that was in your
- paper, the ASTM paper from 1984.
- 24 A Oh. I'm sorry. Where we were talking
- 25 about all those data that were listed, the air

```
samples and --
 1
 2.
           Q
                Yes -- yes, Doctor.
 3
           Α
                No.
 4
                Okay. You got that from a separate
 5
    analytical system that you did.
 6
           Α
                Yes.
 7
                MR. PLACITELLA: Okay. Now -- well, I
 8
    said 15 minutes. I kept to it, but I still need
9
    to see my tests.
10
                THE WITNESS: Okay.
11
                MR. FROST: Can we go off the record?
12
                MR. PLACITELLA: Okay. Yep.
13
                                   The time is 4:09 p.m.
                THE VIDEOGRAPHER:
14
    We're going off the record.
15
                (Recess.)
16
                THE VIDEOGRAPHER: The time is 4:24
17
    p.m., and we're back on the record.
18
    BY MR. PLACITELLA:
19
                Okay. Did you bring my tests with you?
           Q
20
                I did.
           Α
21
                Okay. Just before we go there, would --
           0
22
    do you agree that TEM is the gold standard for
23
    testing for talc to determine whether there's
24
    asbestos?
25
                MR. FROST: Objection to form.
```

```
1
                THE WITNESS:
                               No.
 2
    BY MR. PLACITELLA:
 3
           0
                Okay. Do you have 51?
 4
           Α
                Yes.
 5
                MR. FROST: So --
 6
                THE WITNESS: We need to look at them
 7
    together.
 8
                MR. FROST: I was going to say it might
 9
    make sense for us to go through, tell you the
10
    changes, give it to you, and then you can ask
11
    her --
12
    BY MR. PLACITELLA:
13
                Well, why don't I just flip through it
14
    and put it up on the ELMO.
15
                Oh, okay.
           Α
16
                Does that work?
           Q
17
           Α
                Yes, that works.
18
                Or you can sit next to me.
           0
19
           Α
                No, that works.
20
                But I didn't think you would really
           0
21
    want to do that at the end of the day.
22
                I wouldn't be in the camera.
           Α
23
                Oh.
                     Well, no, you get the camera this
24
           I mean, you probably wouldn't want it on
```

Okay.

record.

```
1
                All right. So --
 2.
           Α
                I numbered your pages.
 3
           0
                Thank you.
 4
                So I'm just going to keep going until I
 5
    see something. How's that?
 6
           Α
                No, I'd like to go through it page by
 7
    page --
 8
                MR. FROST: Yeah, I was going to say --
 9
                THE WITNESS: -- if you don't mind.
10
                MR. FROST: -- I think we should do it
11
    page by page.
12
    BY MR. PLACITELLA:
13
                Did you make any changes on number 1?
14
                I would add, which I didn't add on the
           Α
15
    piece of paper, but I would certainly want to be
16
    put on the record that I have 45 years of
17
    experience that I also relied on.
18
                Actually, I was going to actually ask
19
    you what your diet was, because I think you look
20
    awesome. Okay? So put that aside. I assume you
21
    have experience.
22
                So I'm flipping through 3 --
23
                MR. FROST: Yeah, why don't we mark this
24
    as --
25
                MR. PLACITELLA: AW-50-A?
```

```
1
                MR. FROST: Can you hand that to the
 2
    court reporter.
 3
                MR. PLACITELLA: Can we make it 50-A?
 4
                MR. FROST: Sure.
 5
                THE WITNESS: Okay.
 6
                (Wylie Exhibit No. AW-50-A was
 7
                marked for identification.)
 8
    BY MR. PLACITELLA:
 9
                Well -- okay. Sorry.
           0
10
                What do you want me to do with this?
11
           Α
                You had asked me what approach I would
12
    take for the identification of asbestos by
13
    polarized light microscopy, and we went through --
14
                Right.
           0
                -- a series, and it began on -- keep
15
           Α
16
    going -- the page there.
17
           Q
                Okay.
18
                All right. And I rewrote that, just
           Α
19
    that page, and I think the next, and perhaps even
20
    the next, to be sure that it was complete and
21
    rigorous.
22
                I don't -- it isn't that what you had
23
    was so wrong. It's just that I don't normally
24
    want to agree with what someone else has read
25
    that -- written that I said. So I just rewrote it
```

- in a format with which I'm comfortable. So you
- 2 could look that over and see if there's anything
- in what I've written here that we did not discuss.
- Q Okay. We'll you -- you wrote in 50-A.
- 5 Did you do this by yourself or were in conjunction
- 6 with your lawyer?
- 7 A By myself.
- 8 Q Okay. So before we get there, you still
- 9 didn't give me a grade.
- MR. FROST: Well, handwriting or
- 11 content?
- MR. PLACITELLA: No, on how I did here.
- THE WITNESS: B plus.
- MR. PLACITELLA: Okay, I'll take it.
- 15 BY MR. PLACITELLA:
- 16 Q Now, 50-A is your amendment to this
- entire pad, is that fair?
- 18 A Not quite. I'd like to go through it
- 19 page by page.
- Q Okay.
- Okay. I -- we'll put this in the
- 22 record.
- 23 A That's fine.
- Q That's fine. I mean your testimony is
- what it is, and we'll leave this as -- in the

```
record, okay?
 1
 2.
                So let's go through 3.
 3
           Α
                That's amended there.
 4
           Q
                Okay.
                      4?
                If there's anything at the bottom,
 5
           Α
 6
    that -- that's all that shows. I can only see
 7
    down to (c). Okay. Yes, that's amended in that
 8
    or contributed.
9
                All right.
           Q
10
           Α
                I -- I let that stand.
11
           Q
                Okay.
12
          Α
                I let that stand.
13
                Okay. Population, page 6. I'm on
14
    page 7, fiber bundles.
15
                I'll let that stand.
           Α
16
           Q
                Okay. Page 8?
17
                Could you move it down a little bit so I
18
    can see the -- all right. Yes, I'll let that
19
    stand.
20
                Okay. Page 9, one of the regulated --
21
    we never actually wrote in it.
22
                Okay. Page 10?
23
                I corrected "abundance greater than one"
           Α
24
    to reflect my comment that you need many more than
```

one.

- 1 Q How many more?
- 2 A I don't know. Many more.
- 3 Q Well, do I need four Golden Retrievers?
- 4 Five?
- 5 MR. FROST: Objection to form.
- 6 BY MR. PLACITELLA:
- 7 Q I mean, how is somebody supposed to
- 8 apply your method if they don't know what
- 9 "abundance" means?
- MR. FROST: Objection to form.
- 11 BY MR. PLACITELLA:
- 12 Q Doctor, if you're -- you're going to
- teach somebody, I'm your student, and I'm saying,
- 14 Well, what do you mean by abundance? How many
- 15 Golden Retrievers do I have to look at? How many?
- 16 A Many more than one.
- 17 Q But you don't know.
- 18 A It very much depends upon the
- 19 characteristics. So, for example, if the
- 20 particles were all totally uniform, you would need
- 21 fewer.
- Q Okay.
- 23 A If they're highly variable, you would
- 24 need more.
- Q But a student applying your method

```
1
     looking at the same sample that you are --
 2.
           Α
                Yes.
 3
                -- how would I know what to look at if I
 4
    didn't have you whispering in my ear, That's too
 5
    many, that's too little?
                MR. FROST: Objection to form.
 6
 7
                THE WITNESS: I -- I think I would just
 8
    say, There are many more than one.
    BY MR. PLACITELLA:
10
                Okay. But we can't say how many?
           Q
11
           Α
                No.
12
                Okay. Next.
           Q
13
                That's in the -- it's listed in that
           Α
14
    correction that I gave you.
15
                Okay. But it's not required.
           0
16
                That's the way I -- yes, that's what
           Α
17
    mine says.
18
                Okay. 12?
           O
19
                Could I see what's down at the bottom?
           Α
20
                Uh-huh.
           Q
21
           Α
                Yes.
22
                It's fine?
           Q
23
           Α
                Mm-hmm.
24
                13, you wrote?
           0
25
           Α
                That's -- those are my initials.
```

1 Right. Q 2. I crossed out "expected" and put Α 3 "required." 4 Q Put -- so you changed your mind. 5 Well, I use --Α 6 0 You thought about it more. 7 I always use it, and I don't know of any Α 8 instances where you have asbestos where you do not 9 have anomalous properties. 10 Q Okay. 11 So I -- I put "required." Α 12 So your next article, that's what you're Q 13 going to write? 14 MR. FROST: Objection to form. 15 BY MR. PLACITELLA: 16 0 Yes? 17 I don't plan -- I'm not -- have any 18 plans to write another article on this topic. 19 You're done with this except for 20 testifying? 21 MR. FROST: Objection to form. 22 THE WITNESS: No, I'm not done with this. What do you mean by "this"? 23 24 BY MR. PLACITELLA:

Well, you don't plan on publishing these

O

```
criteria?
 1
 2.
           Α
                I don't.
 3
           0
                Okay.
 4
           Α
                I have no -- I have no plans to do that.
 5
                Okay. And that's the end of the pad,
           0
 6
    correct?
 7
           Α
                Yes.
 8
                Okay. Now -- so I just have one
           0
 9
    question.
                I know you had a number of consults
10
    with Johnson & Johnson's attorney while I was
11
    eating cookies, and did any of the consults you
    had with Johnson & Johnson's attorneys cause you
12
13
    to change your testimony from today in any
14
    material way?
15
                            Well, objection to form.
                MR. FROST:
16
                First off, the CMO regarding the
17
    deposition procedure is very clear that the
18
    negotiated resolution was any conferences during
19
    breaks were off limits from the deposition.
20
                MR. PLACITELLA: I'm not asking her the
21
                 I'm just asking whether any
    substance.
22
    conferences with you and her and the other lawyers
23
    at Johnson & Johnson caused her to change her
24
    testimony in any material way.
25
                MR. FROST:
                            And again, I think --
```

- 1 MR. PLACITELLA: That's all. I'm not
- 2 asking her about what exactly was said.
- MR. FROST: Nope. Again, I think that's
- 4 inappropriate. I think you're diving into
- 5 attorney-client privilege. And frankly, I think
- 6 you're breaking the procedure that was negotiated
- 7 by both sides in this case.
- MR. PLACITELLA: I'm breaking procedure
- 9 by asking that question?
- MS. O'DELL: I think he's clearly not
- 11 asking the substance of the conversation.
- MR. PLACITELLA: Right.
- MS. O'DELL: He's not saying you
- 14 can't --
- 15 BY MR. PLACITELLA:
- 16 Q I'm not asking you what was stated. All
- 17 I'm asking you is --
- MS. O'DELL: At the last deposition we
- 19 were at --
- 20 BY MR. PLACITELLA:
- 21 Q -- are you -- based -- having had a
- 22 consult with your attorney, your attorneys, do you
- need to change your testimony in any way?
- MR. FROST: I'll renew my objection. I
- 25 have not instructed my witness not to answer. But

- 1 my objection is on the record.
 2 BY MR. PLACITELLA:
 3 Q Okay.
 - 4 A No.
 - 5 O Okay.
 - 6 MR. PLACITELLA: The answer was much
 - ⁷ shorter than the objection.
 - That's all my questions for now,
 - 9 depending on if your counsel has any questions.
- But -- oh, can we just -- well, we're
- just going to put these in the record. This is
- 12 AW-44 and Hopkins 28.
- 13 (Wylie Exhibit No. AW-44 was
- marked for identification.)
- MR. PLACITELLA: So take a look.
- And 50, if I get a copy -- if I get a
- copy of this, would you after, for Mr. Frost, put
- 18 the "B+" on the copy?
- Okay. That's all I've got.
- MR. FROST: All right. Let's take a
- 21 break. We do have some questions. And we're
- 22 actually waiting for some things to be printed.
- THE VIDEOGRAPHER: The time is 4:34 p.m.
- and we're going off the record.
- 25 (Wylie Exhibit No. AW-52 was

```
1
                marked for identification.)
 2
                (Recess.)
 3
                THE VIDEOGRAPHER: The time is 4:56 p.m.
 4
    and we're back on the record.
                     CROSS-EXAMINATION
 5
 6
    BY MR. FROST:
 7
                Good afternoon, Dr. Wylie. Jack Frost
 8
    from Biddle & Reath. As you know, I represent
    Johnson & Johnson in this case.
 9
10
                I'm going to ask you a few questions
11
    this afternoon. They shouldn't take too long, and
12
    I apologize now, I'm going to be jumping around a
13
    bit.
14
                But do you recall this morning when you
15
    were asked a series of questions about testimony
16
    you gave to a United States Senate Committee about
17
    an asbestos ban bill?
18
           Α
                I do.
19
                Can you explain to me in your own words
20
    what happened at that hearing?
21
                I went to give testimony on the nature
           Α
22
    of asbestos.
                   I went to urge the Committee to
23
    expand the definitions of regulated asbestos to
24
    include all asbestiform amphibole.
                                          I also
25
```

requested that a methodology be developed so that

- 1 ordinary rock fragment would not be included.
- 2 And at the end of my testimony, I was
- 3 asked if I had ever worked for -- or I thought I
- 4 was asked if I had ever worked for asbestos
- 5 companies, and in the context of that hearing and
- 6 what was going on, I answered that question, "No."
- 7 The -- Senator Boxer then asked about
- 8 some invoices that she had and -- from
- 9 R.T. Vanderbilt. And so I said -- and she -- I
- 10 asked her to rephrase the question, because I -- I
- 11 thought perhaps I had answered a question that
- wasn't exactly asked. She rephrased the question
- 13 somewhat and talked about had I ever given a
- deposition, or something to that effect, in
- 15 litigation around allegations of asbestos-related
- 16 diseases or -- and of course, I had to answer in
- 17 the affirmative then.
- And it was a very disturbing experience
- 19 for me because my integrity means a lot. And so
- 20 at the conclusion of that event, I wrote the
- 21 Senator a letter and detailing exactly what my
- 22 experience had been around the questions that she
- asked, and just basically trying to explain my
- misunderstanding and I had no intention to
- deceive.

1 I'm going to mark as --Q 2. MR. FROST: Sorry, what exhibit are we 3 on? 4 THE REPORTER: 54. 5 MR. FROST: AW-54. Pass this to the 6 court reporter. 7 (Wylie Exhibit No. AW-54 was 8 marked for identification.) 9 MR. FROST: This is for you. 10 THE WITNESS: Oh. 11 MS. O'DELL: Do you have a copy for us? 12 MR. FROST: I don't. I only have the 13 It was in the reliance materials we 14 forwarded. 15 MS. O'DELL: Okay. 16 MR. PLACITELLA: Okay. We waited for 17 half an hour. You don't have a copy for me? 18 MR. FROST: We do. I was going to say 19 we have the big one. 20 BY MR. FROST: 21 But is this a -- is this a copy of the 0 22 letter you were talking about, Dr. Wylie? 23 Α Yes. 24 MR. FROST: I mean, I'm happy to give it

to you, Chris, to look at.

25

- 1 MR. PLACITELLA: Oh, it's -- I believe
- 2 her. I don't have to look at it.
- MR. FROST: Okay. And again, the --
- 4 MS. O'DELL: For my purposes, what is
- 5 the date on it so I can --
- THE WITNESS: June 16th, 2007.
- 7 BY MR. FROST:
- 8 Q And does this letter reflect what you
- 9 just talked about, the misunderstanding you had
- 10 about the questions being asked by doctor -- or,
- 11 sorry, by Senator Boxer?
- 12 A Yes.
- Q And prior to today -- or I guess I'll
- 14 strike that.
- This morning Mr. Placitella asked you a
- 16 series of questions about whether or not some
- companies you had done consultation work for
- 18 manufactured asbestos-containing products; is that
- 19 correct?
- 20 A That's correct.
- 21 Q Prior to this morning, did you know that
- 22 any of those companies may have manufactured
- 23 asbestos-containing products?
- 24 A I did not.
- Q And that was something that you learned

- 1 today?
- 2 A Yes.
- 3 Q This morning you were also asked various
- 4 questions about the methodologies you employed in
- 5 undertaking or in drafting your expert report.
- 6 Can you please explain to us what
- 7 methodology you employed in this case?
- 8 A I reviewed the literature. I -- what I
- 9 basically did was for review of the literature and
- the reports, I considered myself as a reviewer of
- 11 a document like I would in an academic setting for
- 12 a journal. And that was my job, and that's what I
- 13 did.
- 14 Q And is what you did to draft your report
- any different than what you would undertake in
- this literature review as an academic?
- 17 A No.
- 18 Q And can you explain to us what steps you
- 19 took to conduct your literature review?
- 20 A I searched through GeoRef, which is a
- 21 database for geologic literature. I searched the
- web, just putting in information and seeing what I
- 23 could find on the various mines, for example. I
- think that's how I found the information on Mindat
- 25 for the Argonaut Mine. And of course, I reviewed

- 1 the two Pooley reports.
- 2 Q If you were undertaking a scientific
- 3 review as -- in your role as professor emeritus,
- 4 is there anything different you would have done in
- 5 undertaking that literature review than you did
- 6 here?
- 7 A No.
- 8 Q Are there any additional sources you
- 9 would have sought out to consider?
- 10 A No.
- 11 O You were also asked a series of
- questions this morning about articles you relied
- on, and the question was always asked around, you
- 14 know, the frame of other than articles in which
- 15 you were an author.
- Do -- do you recall that series?
- 17 A I do.
- MR. PLACITELLA: Objection to the form.
- 19 BY MR. FROST:
- Q Is it acceptable in a scientific
- literature review to rely on peer-reviewed
- 22 articles?
- MR. PLACITELLA: Objection to form.
- 24 THE WITNESS: Yes.
- 25 BY MR. FROST:

- 1 Q And can you explain to me what a
- peer-reviewed -- like what it means to be a
- 3 peer-reviewed publication?
- 4 A It means that the manuscript that you
- 5 submit to a journal is sent out, usually
- 6 anonymously, to experts in the field. And their
- 7 comments come back to the editor. The editor
- 8 sometimes -- mostly will ask for responses.
- 9 The -- sometimes the peer review requires another
- 10 review. Sometimes it says simply address these
- 11 issues. One addresses the issues, makes the
- revisions or argues that they're unnecessary. The
- editor makes the decision at that point about
- whether to accept an article or require that it go
- 15 out for additional review.
- But in the long run, it really means
- that your work has been reviewed by other experts
- in the field anonymously -- normally anonymously.
- 19 Q And is review of peer-reviewed
- 20 scientific literature what an academic or a
- 21 scientist typically does in undertaking a
- 22 literature review?
- 23 A Normally do you look for peer-reviewed
- 24 information?
- 25 O Yes.

- 1 A If it's available, certainly.
- Q With respect to the various publications
- in your report in which you were an author, are
- 4 those peer reviewed?
- 5 A Yes.
- 6 Q Is there any reason it would be
- 7 unreliable to rely on your own peer-reviewed
- 9 publications to support your opinions here?
- 9 A I hope not.
- 10 Q And again, would you agree with me that
- 11 you've actually published a significant number of
- 12 articles with respect to asbestos and the
- identification of asbestos. Is that correct?
- 14 A That's correct.
- MR. PLACITELLA: Objection to form.
- 16 BY MR. FROST:
- Q Can you estimate for me how many
- 18 peer-reviewed articles you've published on this
- 19 subject?
- 20 A I think I put in my report that number
- 38. I'm happy to recount.
- Q Do you know of any other scientists who
- 23 has published more peer-reviewed papers --
- MR. PLACITELLA: In mine it's 39.
- 25 BY MR. FROST:

- 1 Q Are you aware of any other scientists
- who have published more peer-reviewed literature
- 3 than you have in these areas?
- 4 MR. PLACITELLA: Objection. I think
- 5 that's beyond her competence, but okay.
- 6 THE WITNESS: Yeah, I -- I would say
- 7 certainly I'm among those who have published a
- 8 lot. I couldn't tell you -- I don't -- I would
- 9 have to see their CVs.
- 10 BY MR. FROST:
- 11 Q And in addition to your peer-reviewed
- 12 publications on the identification of asbestos and
- asbestos, have you done any other work as a
- 14 scientist in these areas?
- 15 A I have done -- oh, yes, mm-hmm. I have
- done work that I have not published.
- 17 Q And what types of things would this work
- 18 have undertaken?
- MR. PLACITELLA: Object to the form.
- THE WITNESS: I've reviewed reports.
- 21 I've analyzed materials as -- as we've discussed.
- 22 I've done research in the lab. I've had students
- 23 do the work on -- in the topic under my direction.
- 24 BY MR. FROST:
- Q And you would agree with me that you're

- 1 bringing all of this prior experience and work
- into the opinions you've drafted for this case,
- 3 correct?
- 4 A That's --
- 5 MR. PLACITELLA: Objection. Leading.
- 6 THE WITNESS: That's correct.
- 7 BY MR. FROST:
- 8 Q I'm going to turn your attention to a
- 9 letter that was previously marked as AW-17.
- 10 A Yes.
- 11 Q If you could turn to page 3.
- Do you recall Mr. Placitella asked you a
- 13 series of questions regarding this -- this
- 14 particular letter?
- 15 A I do.
- 16 Q And it appears in the last article that
- you're taking issue with an EPA interim method on
- 18 testing of bulk insulation materials. Is that
- 19 fair?
- 20 A That's fair.
- 21 Q What year was this letter written?
- 22 A 1986.
- Q And you've also talked extensively today
- 24 about the EPA PLM testing methodology; is that
- 25 correct?

- 1 A That's correct.
- 2 Q And is that the R-93 method?
- 3 A Yes.
- 4 Q Are you aware what year the EPA
- 5 published R-93?
- 6 A 1993.
- 7 Q So that was certainly after the 1986
- 8 drafting of this letter, correct?
- 9 MR. PLACITELLA: Objection. Leading.
- 10 THE WITNESS: That's --
- 11 BY MR. FROST:
- 12 Q I'll reask the question. Is 1993 after
- 13 1986 when you drafted this letter?
- MR. PLACITELLA: Objection to the form.
- THE WITNESS: Yes.
- 16 BY MR. FROST:
- interim method you're talking about on page 3 of
- 19 this letter?
- 20 A Yes, there was a method, an interim
- 21 method that was published in the '80s. That's the
- 22 method I'm referring to.
- MR. FROST: I'm going to mark this
- document as AW-55. Hand that to the court
- 25 reporter.

- 1 MR. PLACITELLA: Has that been supplied
- 2 to us before?
- MR. FROST: No.
- 4 MR. PLACITELLA: Well, I object to you
- 5 asking her any question about any document that
- 6 has not been supplied to us before the deposition
- or in discovery and which I have no opportunity to
- 8 read and review. So I object to using this at
- 9 all, and I object to all questions relating to it.
- MR. FROST: Well, that's fine, Chris.
- 11 This is in direct rebuttal to something you
- brought up during your examination, and it's a
- 13 publicly available document. So your objection is
- 14 noted, but we're going to continue.
- MR. PLACITELLA: Well -- okay. Well, I
- 16 sat around here for more than an hour, and you
- apparently knew that you were going to use this.
- 18 It would have been nice and courteous if you had
- 19 handed it to me ahead of time. But do whatever
- you will do.
- 21 MR. FROST: I will.
- 22 (Wylie Exhibit AW-55 was marked
- for identification.)
- MR. FROST: Is it marked? Please give
- 25 that to Dr. Wylie.

- 1 BY MR. FROST:
- 2 Q Take your time to review what's been
- 3 marked as AW-55.
- 4 A Yes.
- 5 O Is this the interim method from the EPA
- 6 that you were just talking about?
- 7 A Yes.
- 8 O And is this the interim method that's
- 9 referenced in the letter designated as AW-16?
- 10 A Yes.
- 11 Q Could you point me to where in this
- document your -- or strike that.
- What aspect of this interim method is
- 14 your letter specifically addressing in the final
- paragraph on page 3 of AW-16?
- MR. PLACITELLA: Object to the form.
- 17 THE WITNESS: The section of the method,
- 18 1.7.2.4, "Quantitation of asbestos content." In
- 19 the second paragraph: "For the purpose of this
- method, asbestos fibers," and that's in quotes,
- 21 "are defined as having an aspect ratio greater
- than 3-to-1, and being positively identified as
- one of the minerals in Table 1.1."
- 24 BY MR. FROST:
- Q Did that portion of the interim method

- 1 make it into R-93?
- 2 A It did not.
- Q And what was the reason that you're
- 4 criticizing this particular portion of the interim
- 5 method?
- 6 A It's inadequate to discriminate asbestos
- 7 from cleavage fragments.
- 8 Q All right. Next I'm going to turn your
- 9 attention to what has been previously marked as
- 10 AW-16. I'll hand that to you.
- Do you recall when Mr. Placitella was
- 12 asking you a series of questions about this
- 13 letter?
- 14 A Yes, I do.
- 0 Okay. I'm going to make it real easy so
- 16 the record is clear.
- 17 Did you work with -- well, strike that.
- 18 I'll go back first.
- You testified before, if I'm correct,
- that the work you were doing in and around 1987
- was the drafting of a methodology for PLM that you
- 22 submitted to the ASTM committee. Is that fair?
- 23 A That's fair.
- Q Okay. In drafting that methodology,
- 25 and I'm going to make this really simple, did you

- 1 ever work with or have any communications with
- W. Ashton?
- 3 A He wrote me this letter.
- 4 Q Other than this letter, did you ever
- work with W. Ashton on that methodology?
- 6 A No.
- 7 Q Okay. And we know you've done other
- 8 work with Slim Thompson, but did you do any work
- 9 with Slim Thompson regarding the drafting of this
- 10 methodology?
- 11 A No.
- 12 Q Okay. And in fact, who did you submit
- the methodology to?
- 14 A The committee, ASTM Committee D22507.
- Actually, I probably sent it to Sharon
- 16 Kaufman at ASTM.
- portion of a deposition transcript from
- 19 Dr. Pooley?
- 20 A I do.
- 21 Q And you'd agree with me that that was
- 22 not the complete deposition transcript you were
- 23 shown, correct?
- 24 A Yes, I am.
- MR. PLACITELLA: So -- so stipulated.

```
1
                MR. FROST: I'm going to mark this as
 2
    AW-56, please.
 3
                (Wylie Exhibit No. AW-56 was
 4
                marked for identification.)
 5
                MR. PLACITELLA: I don't want to take it
 6
    home.
            It's too heavy.
 7
                How come you could make a big fat copy
 8
    of that, but you couldn't give me a two-page piece
 9
    of paper?
10
    BY MR. FROST:
11
           Q
                Turn your attention to page 36, please.
12
           Α
                I'm going to have to move this clamp.
13
                That's fine. Take your time.
           0
14
                I'm going to take the clamp off. Okay.
           Α
15
                Okay. I'm going to read a portion of
           0
16
    the deposition.
17
                Starting on page 36, line 8:
18
                        In testing that you did on
                   "0.
19
                the two ore deposits and also baby
20
                powder products with talc in them,
21
                were you ever able to determine
22
                whether or not either the ore or
23
                any of the baby powder had
24
                asbestos in it?
25
                   "A.
                        Well, we were -- part of a
```

	-
1	visit like to take the samples is
2	to look around and see if you can
3	see anything which might represent
4	an asbestos-type contaminant. And
5	although looking at the rock
6	specimens we brought back, there
7	were amphibole minerals, but there
8	were no obvious asbestos visible
9	in the mine.
10	"Q. After all the testing that
11	you did, were you able ever to
12	find asbestos in the samples or
13	the deposit samples that you
14	looked at?"
15	MR. PLACITELLA: Well, can you just put
16	for the record who's asking these questions?
17	MR. FROST: Sure.
18	MR. PLACITELLA: Is it the lawyer for
19	Johnson & Johnson?
20	MR. FROST: Yes.
21	MR. PLACITELLA: So so this is prior
22	to Mr. Lanier's cross, just for context.
23	MR. FROST: I believe that's correct.
24	This is Mr. Bicks.
25	MR. PLACITELLA: Okay. Okay.

```
1
    BY MR. FROST:
 2.
                So before we were interrupted,
           0
    continuing along --
 3
 4
                MR. PLACITELLA: I just --
    BY MR. FROST:
 5
 6
           0
                -- on page 37 --
 7
                MR. FROST: That's fine.
 8
                MR. PLACITELLA: I want to make sure the
    record is clear.
 9
10
    BY MR. FROST:
11
                     No. Mineral types, yeah, amphibole
           Q
12
    mineral, but no asbestos, no."
13
                Did I read that correctly?
14
                That's -- that's what it says.
           Α
15
                Based on what you read here, is this
           0
16
    consistent with what you saw in Dr. Pooley's
17
    report?
18
                It is.
           Α
19
                Now, finally, you were asked a series of
20
    questions about PLM; is that correct?
21
           Α
                Yes.
22
                Is PLM an instrument or a methodology?
           0
23
           Α
                An instrument.
24
                Do you take any issue with the fact that
25
    Drs. Longo and Rigler used PLM as an instrument in
```

- 1 their testing?
- 2 A No.
- 3 Q Is there anything that you take issue
- 4 with?
- MR. PLACITELLA: Objection to the form.
- 6 BY MR. FROST:
- 7 Q That wasn't quite done, but is there
- 8 anything you take issue with with respect to the
- 9 use of PLM in the -- in Dr. Longo and Rigler's
- 10 testing?
- 11 A I -- I believe I've made those comments
- in my testimony.
- 0 Other than what you've testified to
- 14 today, you know, thus far today, is there anything
- with respect to the methodology utilized by them
- 16 under PLM that you take issue with?
- MR. PLACITELLA: Objection to the form.
- 18 THE WITNESS: Yes. I think I outlined
- 19 that.
- 20 BY MR. FROST:
- 21 Q And where do you outline that?
- 22 A In -- in my report.
- Q Okay. So your criticisms with the
- 24 methodology utilized by Drs. Longo and Rigler
- under PLM are set forth in your report; is that

- 1 correct?
- 2 A Yes.
- MR. FROST: Thank you. That's all the
- 4 questions that we have.
- MR. PLACITELLA: Okay. I just have five
- 6 minutes or less.
- 7 MR. FROST: Well, hold on, how much time
- 8 did we use?
- 9 THE VIDEOGRAPHER: That session was 19
- 10 minutes.
- MR. PLACITELLA: Okay. So I'm good,
- 12 right?
- MR. FROST: So 19 minutes are left.
- MR. PLACITELLA: Okay. Well, I will do
- 15 it in five minutes or less.
- 16 REDIRECT EXAMINATION
- 17 BY MR. PLACITELLA:
- 18 O As a scientist, a conscientious
- 19 scientist -- and by the way, this thing with the
- 20 Senate testimony, I appreciate your testimony.
- 21 After that happened, did you go back and look at
- your old CDs and figure out who you worked for to
- see -- before you wrote the letter to -- to
- 24 Senator Boxer to say, Hey, did GAF ever make
- 25 asbestos? Did Keene ever make asbestos? Did you

- 1 ever do that?
- 2 A Her question was quite specific with
- 3 respect to litigation and disease.
- 4 Q Okay. We'll just leave it there.
- 5 As a conscientious scientist, do you --
- 6 but before you come to reach your conclusions, do
- you like to have all the available information or
- 9 just partial, part of the information?
- 9 MR. FROST: Objection to form.
- 10 THE WITNESS: All the information -- I
- 11 guess I'm not clear exactly. If you're referring
- to all of those testings that you showed me, I was
- 13 asked to review this document as I would a peer
- 14 review of a publication, and that was what I did.
- 15 BY MR. PLACITELLA:
- 16 Q Yeah, and I appreciate that, Doctor.
- 17 But what happened in this case is your lawyers
- 18 cherry-picked non-published information and gave
- 19 it to you to review but didn't provide you other
- 20 information. Correct?
- MR. FROST: Objection to form.
- 22 BY MR. PLACITELLA:
- 23 Q That's what happened.
- MR. FROST: Objection to form.
- THE WITNESS: There certainly is a lot

- of information that you showed me.
- 2 BY MR. PLACITELLA:
- Q Okay. And to be complete in your
- 4 analysis, you would at least like to know what it
- is and decide whether to discard it or consider
- 6 it. Do you agree?
- 7 MR. FROST: Objection to form.
- 8 THE WITNESS: Information by itself
- 9 doesn't have a lot of meaning. The context, who
- did it, the reputation of the person, the skills
- of the person, and that sort of thing, and so some
- of those documents you showed me were practically
- before I was a professor. I don't know if they
- 14 would have been helpful to me or not because that
- information might not have been there. I don't
- 16 know.
- 17 BY MR. PLACITELLA:
- 18 Q Well, the Colorado School of Mines,
- 19 that's a respected entity, is it not, testing
- 20 entity?
- MR. FROST: Objection to form.
- THE WITNESS: Yes, so is the University
- of Maryland, yes.
- 24 BY MR. PLACITELLA:
- Q No question.

- 1 A Yes.
- 2 Q And can we just put it on the record so
- when I go home and I talk to my Terrapin son
- 4 graduate that I'm not taking away from the
- 5 University of Maryland.
- 6 But Colorado School of Mines clearly is
- 7 a respected entity for testing, correct?
- 8 MR. FROST: Objection to form.
- 9 THE WITNESS: Yes.
- 10 BY MR. PLACITELLA:
- 11 Q And you were provided nothing from them,
- 12 correct?
- 13 A Yes.
- 14 Q And clearly McCrone is an -- a respected
- 15 entity for testing, correct?
- MR. FROST: Objection to form.
- 17 THE WITNESS: As with all testing
- 18 laboratories, they make mistakes.
- 19 BY MR. PLACITELLA:
- 20 Q Everybody makes mistakes. Do you agree?
- 21 A So, yes, of course.
- Q Okay. And this test method -- this EPA
- 23 test method where you said that what ended up --
- or what you had an issue with was the 3-to-1
- 25 aspect ratio, do you recall that? Mr. --

```
1
                Yes.
           Α
 2.
                -- Frost just --
           Q
 3
           Α
                Yes.
                Other than that, it -- it's fine?
 4
           Q
 5
                I haven't looked at the -- no, I
           Α
 6
    wouldn't say that. I'm not going to bless it
 7
    because I'd have to look at it very carefully.
 8
                Okay. So --
           0
 9
                But in the letter that I wrote which you
           Α
10
    asked me about, I was referring specifically to
11
    the aspect ratio and the particle criteria that
12
    they put for a definition of "asbestos fiber."
13
           0
                Okay.
14
                That was my objection reflected in that
           Α
15
    letter.
16
                So you had no problem with the fact that
17
    they were using a spec for bulk insulation
18
    samples, correct?
19
                MR. FROST: Objection to form.
20
    BY MR. PLACITELLA:
21
                Didn't express that.
           Q
22
                MR. FROST: Objection to form.
23
                THE WITNESS:
                              Please -- please -- please
24
    ask it again.
```

BY MR. PLACITELLA:

25

```
1
                This --
           Q
 2
           Α
                Yes.
 3
                -- was for bulk insulation.
           0
 4
           Α
                That's correct.
 5
                But your problem wasn't that it was for
           0
    bulk insulation. It was because they had the
 6
 7
    wrong aspect ratio, correct?
 8
                MR. FROST: Objection to form.
 9
                THE WITNESS: My problem was is that
10
    because it -- yes. I would say yes.
11
    BY MR. PLACITELLA:
12
                Okay. Now, just so we know, is there
           Q
13
    tremolite in the Vermont mines that were used for
14
    baby powder?
15
                MR. FROST: Objection to form.
16
                THE WITNESS: Yes.
17
    BY MR. PLACITELLA:
18
                There is?
           0
19
           Α
                Yes.
20
                How much?
           0
21
                I don't know.
           Α
22
                Okay. And the only way you would know
           0
23
    is if somebody gave you a sample, correct? And
24
    you test -- you tested or had it tested, correct?
25
                MR. FROST: Objection to form.
```

- 1 BY MR. PLACITELLA:
- Q That's how you would be certain.
- 3 A I would be certain.
- 4 Q Right. And that -- and you would take
- 5 that sample and you would put it under the PLM
- 6 microscope, correct?
- 7 A Correct.
- 8 Q And you would take photomicrographs,
- 9 correct?
- 10 A Usually.
- 11 Q Right. And then based upon that, you
- would make the determination about whether that
- tremolite was asbestos or not, correct?
- MR. FROST: Objection to form.
- THE WITNESS: Yes.
- 16 BY MR. PLACITELLA:
- 17 Q But that didn't happen in this case,
- 18 correct?
- MR. FROST: Objection to form.
- THE WITNESS: I analyzed no samples.
- 21 BY MR. PLACITELLA:
- Q That didn't happen in this case.
- 23 A It did not happen.
- MR. FROST: Objection to form.
- 25 BY MR. PLACITELLA:

- 1 Q And just a couple more questions, and
- 2 I -- I might be going over by one minute.
- In order to determine whether a test was
- 4 valid or not, right, let's say PLM, you would
- 5 actually need either -- you would actually need
- 6 the sample itself and run your own test or the
- output from the microscope, correct?
- MR. FROST: Hold on. First, objection
- 9 to form. Second, objection goes well beyond the
- 10 examination.
- 11 BY MR. PLACITELLA:
- 12 Q Correct?
- In other words, if you had to verify a
- 14 test that was made, right, you would either have
- to look at the output from a microscope that you
- 16 trusted, true?
- 17 A Look at it with --
- MR. FROST: Same objections.
- 19 THE WITNESS: Look at it with a
- 20 microscope myself?
- 21 BY MR. PLACITELLA:
- 22 O Yes.
- 23 A Yes, mm-hmm.
- Q Or you would have to take that sample
- and run the test yourself and draw your own

- 1 conclusions.
- MR. FROST: Same set of objections.
- 3 BY MR. PLACITELLA:
- 4 Q Correct?
- 5 A I think that's what I just said.
- 6 Q Okay. And if the tests output from the
- microscope aren't available to you, they're no
- 8 longer available, they're destroyed, that would
- 9 impact the scientific process of evaluating
- whether there was asbestos or not in that sample,
- 11 correct?
- MR. FROST: Hold on. Objection to form.
- 13 First off, this is outside of the direct
- 14 examination. You've gone far afield of anything
- that we asked. If you wanted to ask these
- 16 questions, Chris, you should have asked them
- during your direct examination.
- MR. PLACITELLA: I'm almost done.
- MR. FROST: Hold on. I'm not done yet.
- And second off, now you're asking
- 21 questions that have absolutely nothing to do with
- 22 any of the opinions that Dr. Wylie has rendered in
- 23 this case.
- MR. PLACITELLA: Well, somebody else
- will make that determination.

- 1 BY MR. PLACITELLA:
- 2 Q So all I'm asking you is, if you wanted
- 3 to verify testing that was done by somebody else,
- 4 you would need to see the actual output from the
- 5 microscope that they were looking at in a clear
- 6 and presentable form. Is that fair?
- 7 MR. FROST: Same set of objections.
- 8 THE WITNESS: I would need a list of the
- 9 properties that they measured and the data that
- 10 they -- and the results of those properties. I'd
- like to know if they're calling it tremolite.
- What is the principal index of refraction, what is
- the extinction angle, where is the optic plane,
- 14 and all of those listing things that I gave you.
- 15 BY MR. PLACITELLA:
- 16 Q Right.
- 17 A Those could be listed. They could be
- 18 listed. I would not necessarily -- if I had all
- of that information, I think I would be able to
- 20 conclude whether they had valid assumptions or
- 21 valid conclusions.
- Q Right. I'm not quarreling with you.
- 23 A I don't need the output from the
- 24 microscope --
- Q Okay.

- 1 A -- in the sense I don't need
- 2 necessarily -- I mean, I don't know what you're
- 3 really referring to with output --
- 4 Q Were the photomicrographs --
- 5 A Well, that doesn't give you --
- 6 MR. FROST: Objection to form.
- 7 THE WITNESS: -- the optical properties.
- 8 BY MR. PLACITELLA:
- 9 Q Okay. What does give you the optical
- 10 properties?
- MR. FROST: Objection.
- 12 THE WITNESS: You have to measure --
- 13 BY MR. PLACITELLA:
- 14 Q No, what output gives you the optical
- properties that you could look at to verify?
- MR. FROST: Objection.
- 17 THE WITNESS: I would need a table
- indicating that they had measured them and what
- 19 they had found.
- 20 BY MR. PLACITELLA:
- Q Okay. And without that information,
- you -- you couldn't really verify one way or the
- 23 other?
- MR. FROST: Same set of objections.
- 25 BY MR. PLACITELLA:

- 1 Q That's all I'm asking.
- 2 A That's right.
- 3 Q Right.
- 4 So if Johnson & Johnson was doing
- 5 testing historically, the only way that you could
- 6 verify the validity of those tests is to have the
- 7 kind of information that you are referring to
- 8 today, correct?
- 9 MR. FROST: Objection to form. And
- 10 again, I think these questions are becoming more
- and more inappropriate as you're going, Chris.
- 12 THE WITNESS: Yeah, I have to think a
- 13 little bit about your answer, because when -- when
- 14 you apply the EPA method, and they tell you that
- 15 they have seen that meth- -- that information,
- and, yes, they verified that they found fiber
- bundles, and that sort of thing -- you're --
- 18 you're talking about a legal setting. I operate
- in a scientific setting. So I think they're
- 20 really quite different.
- 21 And what I would accept from a
- scientist's word who I knew was well trained might
- 23 be different from what you would accept as a
- lawyer.
- 25 BY MR. PLACITELLA:

- 1 Q Okay. Okay. What was my question?
- 2 A I think you asked me if I had to have
- 3 the output from the microscope, and I was not
- 4 clear what that is.
- Q Okay.
- 6 A These are observations that are made and
- 7 measurements that were --
- Q I was probably inartful.
- 9 There would be results that you would
- 10 like to look at in order to verify whether in your
- opinion you agreed with somebody else's
- 12 conclusions, correct?
- MR. FROST: Same objections.
- 14 THE WITNESS: Yes. And they were not
- available in the Longo and Rigler report.
- 16 BY MR. PLACITELLA:
- 17 Q And they weren't available for any of
- the other tests that Johnson & Johnson did,
- 19 correct?
- MR. FROST: Same objection. You're
- 21 asking her to speculate now.
- THE WITNESS: I haven't seen them.
- 23 BY MR. PLACITELLA:
- Q Would you liked to have seen them?
- MR. FROST: Objection.

- 1 BY MR. PLACITELLA:
- 2 O No?
- 3 A No.
- 4 O So if Johnson & Johnson did their own
- 5 tests on their own samples, that wouldn't have
- 6 been important to you in terms of your opinions in
- 7 this case?
- 8 MR. FROST: Objection. Asked and
- 9 answered several times.
- 10 THE WITNESS: I was asked to act as a
- 11 reviewer. I was not -- a reviewer of very
- 12 specific things, and that's what I did.
- 13 BY MR. PLACITELLA:
- Q Okay. But there's no question, as we
- end this deposition, that there was tremolite in
- the Vermont mines used for baby powder, correct?
- MR. FROST: Objection to form.
- 18 THE WITNESS: Correct.
- MR. PLACITELLA: Okay. No more
- ²⁰ questions. Thank you.
- MR. FROST: I just have one question,
- 22 follow up to that.
- 23 RECROSS-EXAMINATION
- 24 BY MR. FROST:
- Q When you're -- when you say "tremolite,"

- 1 Dr. Wylie, you're talking about tremolite, the
- 2 mineral, which is different than asbestiform
- 3 tremolite, right?
- 4 MR. PLACITELLA: Objection. Leading,
- 5 form. You can't do that.
- 6 MR. FROST: Well, I don't know that you
- 7 have --
- MR. PLACITELLA: You can't do that.
- 9 MR. FROST: -- much of a right to object
- 10 here, but fine.
- 11 BY MR. FROST:
- 12 Q What did you mean by object -- or what
- do you mean by tremolite, Dr. Wylie, in
- 14 response --
- MR. PLACITELLA: Object --
- 16 BY MR. FROST:
- 17 Q -- to Mr. Placitella's question?
- MR. PLACITELLA: Objection.
- THE WITNESS: In my report I clearly
- stated that a mineral name is applied to a
- 21 chemical composition and an ordered atomic
- 22 arrangement, and the external morphology or its
- habit is unrelated entirely to the mineral name.
- 24 BY MR. FROST:
- Q So just because Mr. Placitella was

```
asking you about tremolite, that doesn't mean that
 1
 2
    you believe there's asbestiform tremolite in those
 3
    mines, correct?
 4
                MR. PLACITELLA: Objection. Leading,
 5
    form.
 6
                THE WITNESS: No.
 7
                MR. FROST: Okay. That's all the
 8
    questions we have.
9
                    REDIRECT EXAMINATION
10
    BY MR. PLACITELLA:
                You'd have to see all the testing,
11
           0
12
    wouldn't you, to make a final conclusion?
13
                MR. FROST: Objection to form.
14
                THE WITNESS:
                              No.
15
                MR. PLACITELLA: Okay. That's all the
16
    questions I have. Thank you.
17
                THE VIDEOGRAPHER: All right. The time
18
    is 5:29 p.m., on March 13th, 2019. We're going
19
    off the record, completing the videotaped
20
    deposition.
21
                (Whereupon, the deposition of
22
                ANN G. WYLIE, Ph.D. was
23
                concluded at 5:29 p.m.)
24
25
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1
         CERTIFICATE OF CERTIFIED SHORTHAND REPORTER
 2.
          The undersigned Certified Shorthand Reporter
 3
    does hereby certify:
 4
          That the foregoing proceeding was taken before
 5
    me at the time and place therein set forth, at
 6
    which time the witness was duly sworn; That the
 7
    testimony of the witness and all objections made
 8
    at the time of the examination were recorded
 9
    stenographically by me and were thereafter
10
    transcribed, said transcript being a true and
11
    correct copy of my shorthand notes thereof; That
12
    the dismantling of the original transcript will
13
    void the reporter's certificate.
14
          In witness thereof, I have subscribed my name
15
    this date: March 15, 2019.
16
17
18
                       LESLIE A. TODD, CSR, RPR
19
                       Certificate No. 5129
20
     (The foregoing certification of
    this transcript does not apply to any
21
22
    reproduction of the same by any means,
23
    unless under the direct control and/or
24
    supervision of the certifying reporter.)
25
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1
                  INSTRUCTIONS TO WITNESS
 2.
          Please read your deposition over carefully and
 3
    make any necessary corrections. You should state
 4
    the reason in the appropriate space on the errata
 5
    sheet for any corrections that are made.
 6
    After doing so, please sign the errata sheet
 7
    and date it.
 8
          You are signing same subject to the changes
 9
    you have noted on the errata sheet, which will be
10
    attached to your deposition. It is imperative
11
    that you return the original errata sheet to the
12
    deposing attorney within thirty (30) days of
13
    receipt of the deposition transcript by you.
                                                    Ιf
14
    you fail to do so, the deposition transcript may
15
    be deemed to be accurate and may be used in court.
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2		E R R A T A
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4	PAGE LINE CHANGE	
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1	ACKNOWLEDGMENT OF DEPONENT	
2	I,, do	hereby
3	certify that I have read the foregoing	pages, and
4	that the same is a correct transcripti	on of the
5	answers given by me to the questions t	herein
6	propounded, except for the corrections	or changes
7	in form or substance, if any, noted in	the
8	attached Errata Sheet.	
9		
10		
11	ANN G. WYLIE, Ph.D.	DATE
12		
13		
14	Subscribed and sworn to	
15	before me this	
16	day of,20	
17	My commission expires:	
18		
19	Notary Public	
20		
21		
22		
23		
24		
25		

Case 3:16-md-02738-MAS-RLS Document 33006-26 Filed 07/23/24 Page 293 of 293

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